

RR NO.

14854

1974

MANDATE FOR READINESS

department
of defense

defense
civil
preparedness
agency

annual
report
1974

1787867

STANDARD 11-1-10

REF 14854
1974

MANDATE FOR READINESS

U.S. ANNUAL REPORT OF
THE DEFENSE CIVIL PREPAREDNESS AGENCY

FISCAL YEAR ENDED JUNE 30, 1974



d.

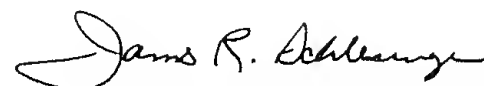
LETTERS OF TRANSMITTAL

The Secretary of Defense

February 12, 1975

MEMORANDUM FOR THE PRESIDENT

In compliance with section 406 of the Federal Civil Defense Act of 1950 and section 5 of Executive Order 10952 of July 20, 1961, I submit herewith the third annual report of the Defense Civil Preparedness Agency, covering civil defense functions assigned to me.



JAMES R. SCHLESINGER

Department of Defense

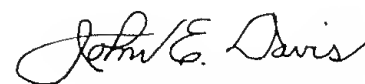
Defense Civil Preparedness Agency

February 4, 1975

MEMORANDUM FOR THE SECRETARY OF DEFENSE

The third annual report of the Defense Civil Preparedness Agency is attached.

The report shows fiscal year 1974 progress in helping State and local governments build emergency operating capabilities.



JOHN E. DAVIS
Director

CONTENTS

	Page
Transmittals to the President and to the Secretary of Defense	iii
DUAL-USE CIVIL PREPAREDNESS	1
The Program	1
Joint Responsibility	3
By Any Name—Preparedness	
Partners	4
Paying for the Program	5
CAPABILITY TO COPE	7
On-Site Assistance	7
Civil Preparedness Military Reserve Mobilization Designee Program (CP MOBDES)	8
Warning	8
National Warning System (NAWAS)	8
Decision Information Distribu- tion System (DIDS)	10
State and Local Warning	10
Emergency Operations: Command, Control, and Communications	10
Civil Defense National Teletype System (Primary)	11
Civil Defense National Voice System (Primary)	11
Civil Defense National Radio System (Backup)	11
Radio Amateur Civil Emergency Service (RACES)	11
State and Local Emergency Com- munications Planning	11
Broadcast Station Protection Program	12
Regional Emergency Operating Centers	12
State and Local Emergency Operating Centers	12

	Page
Damage Assessment	13
Emergency Operations Planning	13
Radiological Defense	14
Emergency Equipment	17
Tests and Exercises	17
“ALL-EFFECTS” PROTECTION	21
The Shelter Program	22
The National Shelter Survey	22
Shelter Development	23
Professional Development of Architects and Engineers	23
Services to Architects and Engineers	24
Licensing and Marking Shelter	25
Community Shelter Planning (CSP)	26
VITAL SERVICE PROGRAMS	29
Training and Education	29
State-Level Seminars	29
DCPA Staff College	29
Civil Preparedness University Extension Program (CPUEP)	31
Civil Preparedness Education (CPE)	31
Medical Self-Help Training	31
Rural Civil Defense	32
Information Services	32
Motion Pictures	34
Television	34
Exhibits	34
Liaison Services—National and International	34
Research and Development	37
FEDERAL ASSISTANCE	43
Supporting Systems Equipment; and Emergency Operating Centers	43
Systems Maintenance and Services	44
Personnel and Administrative Expenses	44
Surplus Property	44
Contributions Project Loan Program	45
CHARTS AND MAPS	47
STATISTICAL TABLES	53
AGREEMENTS	65



DUAL-USE CIVIL PREPAREDNESS

"Development of civil defense capabilities which are essential to our national security also generates, as a bonus, an improved readiness on the part of State and local governments to conduct coordinated operations in peacetime emergencies and disasters. . . ."

Honorable James R. Schlesinger
Secretary of Defense

The mind rebels against thinking about disaster. Disasters are never pleasant events—they can't always be averted—but with advance planning, their effects can be mitigated. Preparing for disaster is the major concern of the Defense Civil Preparedness Agency (DCPA).

The Congress thought about it nearly 25 years ago—to the extent that legislation was passed, called "The Federal Civil Defense Act of 1950." That is how modern-day civil defense, now broadened to "civil preparedness," came into being. Their concern at the time was the threat of large-scale aerial attacks on cities and industrial centers. That concern remains today, as it applies to the more powerful and more extensive effects which can be generated by nuclear weapons.

Much has been accomplished on the international scene, and work continues, to assure a peaceful world. But the *possibility* of attack on this country always exists, and disasters are a daily occurrence in peacetime. That is why DCPA guidance and support is provided to State and local governments to help them establish and improve their emergency operations capabilities. And that

is why DCPA assistance is aimed at developing a dual-use capability—a capability for use of personnel, facilities, equipment, and systems to meet the needs of a nuclear-caused disaster and the day-to-day requirements of peacetime disasters as well.

THE PROGRAM

Programs of the DCPA are based primarily on the Federal Civil Defense Act of 1950 which states the intent of Congress to "provide a system of civil defense for the protection of life and property in the United States from attack."

Commenting on this *mandate* in his fiscal year 1975 Annual Defense Department Report to The Congress, Secretary Schlesinger said:

"The shift in our strategic deterrence policy . . . does not diminish the need for a vigorous Civil Defense Program. A Soviet counterforce attack which deliberately avoids our cities—for example, a large scale attack on MINUTE-MAN—would still produce a large amount of nuclear fallout which could drift over our cities. It would be highly desirable, therefore, to continue our efforts to identify additional fallout shelter spaces for our population."

In addition to the Federal Civil Defense Act of 1950, other bases for DCPA programs include: Executive Order 10952; Public Law 93-288 known as "The Disaster Relief Act of 1974;" and Department of Defense Directive 5105.43, "Defense Civil Preparedness Agency," July 14, 1972.

In accordance with Executive Order 10952, John E. Davis, Director of DCPA, acts for the Secretary of Defense in developing and administering the overall National Civil Preparedness

Program including:

1. A shelter program including evacuation and movement to shelter;
2. A civilian chemical, biological, and radiological warfare defense program;
3. Development and operation of civil preparedness warning or alerting, and communications systems;
4. Planning for emergency assistance to State and local governments in a postattack period;
5. Guidance and assistance to State and local governments to increase their protection and emergency operations capability;
6. Programs for financial contributions and donation of Federal surplus property to the States for civil preparedness purposes;
7. Developing systems to conduct nationwide assessments in event of attack to determine: (a) The nature and extent of damage, (b) surviving resources, and (c) specific hazards resulting from the detonation or use of special weapons;
8. A system for warning affected Federal activities, State and local governments, and the civilian population of impending disasters;
9. Providing planning assistance to local governments in their development of disaster preparedness plans and capabilities; and
10. Establishment and administration of a Civil Preparedness Advisory Committee to serve the Secretary of Defense.

The objective of civil preparedness at all levels is to develop the capability to protect life and property in any type of disaster. In furthering that objective, the "dual-use" concept advocated by the DCPA is applied wherever possible. This is the policy of developing emergency systems useful both in everyday routine of government as well as during emergencies—in the event of attack or during peacetime.

The current program of the DCPA continues to give priority consideration to: (1) Development of a professionalized organizational capability in States and localities for disaster management; (2) measures designed to emphasize available protection from the most likely hazards; e.g., direct blast, and thermal and radioactive fallout effects of nuclear attack, and severe winds and extensive flooding resulting from natural disasters; and (3) systems that would be implemented only in a crisis in order to reduce peacetime costs and avoid rapid obsolescence.

Recognizing that the ability to cope with attacks and other disasters must exist at the local level, primary emphasis is given to the provision of leadership, guidance, and assistance to municipal and county governments.

On-Site Assistance (OSA) is DCPA's principal means for providing pinpoint guidance and assistance to local governments. On-Site surveys of emergency preparedness, followed by development of action plans for eliminating preparedness deficiencies through a combination of Federal, State, and local self-help efforts have proven to be an effective approach. In addition, career development training for State and local civil preparedness officials and emergency operations exercises continue to be important aspects of the effort to build State and local disaster management capability.

Activities receiving major emphasis during fiscal year 1974 include: (1) The designation of areas deemed to be at relatively high-risk from the direct effects of nuclear attack—i.e., those areas most likely to be subjected to the blast and thermal effects of nuclear weapons; (2) conduct of an "all-effects," shelter survey designed to identify the best shelter protection available from radioactive fallout in all areas and from the direct effects of nuclear weapons in high-risk areas; (3) a reoriented community shelter planning program for high-risk areas which provides for consideration of direct nuclear weapons effects as well as fallout; and (4) development of guidance for and feasibility testing of contingency planning for the relocation of populations from high-risk areas during a period of intense international crisis.

Other programs in support of DCPA responsibilities include: Training and Education, Information Services, and Research and Engineering. DCPA also advises the Secretary of the Army on military support of civil defense; is represented at Headquarters, North American Air Defense Command (NORAD), and at Headquarters, U.S. Army Forces Command (FORSCOM); and participates in emergency exercises involving elements of the Department of Defense (DoD) and other Federal agencies, and State and local governments.

The DCPA is organized as a separate and distinct Agency of the Department of Defense, and is civilian in character and direction. DCPA Headquarters is located in the Pentagon. In addition, there are eight DCPA Regional Offices located at Region One, Maynard, Mass.; Region Two, Olney, Md.; Region Three, Thomasville, Ga.; Region

Four, Battle Creek, Mich.; Region Five, Denton, Tex.; Region Six, Denver, Colo.; Region Seven, Santa Rosa, Calif.; and Region Eight, Bothell, Wash. In addition, there are two Regional Field Offices, at New York City in Region One, and Kansas City, Mo., in Region Six. DCPA also maintains a Staff College at Battle Creek, Mich. During the fiscal year, arrangements were completed for the transfer, effective July 1, 1974, of the National Civil Defense Computer Support Agency from the Corps of Engineers to the DCPA and establishment of the DCPA Computer Center at Olney, Md.

Joint Responsibility

In attaining program objectives, DCPA works closely with State and local governments in developing their capability for taking effective action in time of emergency. This is in keeping with a declaration in the Federal Civil Defense Act that the responsibility for civil defense "shall be vested jointly in the Federal Government and the several States and their political subdivisions." DCPA also works closely with the American Red Cross and the Salvation Army in addition to some 30 other Federal departments and agencies that have emergency preparedness responsibilities assigned by Executive order, or interagency agreement.

DCPA On-Site Assistance activity is increasingly becoming a vehicle for the coordinated guidance and assistance provided by other Federal agencies to local governments in developing emergency preparedness. Examples of joint DCPA and other Federal agency coordinated support to local governments are: natural disaster hazard analysis and public warning procedures with National Weather Service; overall disaster preparedness and post-disaster assistance with Federal Disaster Assistance Administration; emergency communications systems with Law Enforcement Assistance Administration; ambulance and rescue with Department of Transportation; airport disaster planning with Federal Aviation Administration; maritime disaster support with the U.S. Coast Guard; emergency medical services and hospital disaster plans with Department of Health, Education and Welfare; flood control plans with the U.S. Army Corps of Engineers; county agricultural disaster problems with the U.S. Department of Agriculture; peacetime nuclear accident hazards planning with Atomic Energy Commission; environmental hazards with Environmental Protection Agency; and nuclear war preparedness with General Services

Administration, Office of Preparedness.

During fiscal year 1974, DCPA worked closely with the Federal Disaster Assistance Administration (FDAA), a part of the Department of Housing and Urban Development. When major disasters—tornadoes and floods—mushroomed across the United States in early April 1974, more than 60 DCPA staff members from the national and regional offices were placed on temporary duty with FDAA to assist in the massive effort to give immediate help to the disaster victims. Their expertise in preparing for manmade or natural disasters enabled them to manage Federal disaster assistance centers, coordinate the release of disaster information to victims and the public, and perform other specialized jobs. Often, these were the "invisible" but vital persons involved in arranging for disaster relief work by other public and private agencies when and where needed. The immense need for disaster work was met not only by professionals from the Federal level, but also by State and local civil preparedness personnel trained to meet such emergencies.

Liaison, including contractual arrangements for certain civil preparedness activities, is maintained by DCPA with the National Association of State Civil Defense Directors, the United States Civil Defense Council (local membership), and various other technical and professional advisory groups.



Dr. Alan R. Dimick, Department of Surgery, University of Alabama, addressed members of the United States Civil Defense Council on the subject of "Emergency Medical Services," at their mid-year conference held March 19, 1974, at the Sheraton Hotel, Washington, D.C.

Further, DCPA receives timely and effective active support from the Armed Services. The concept of military support for civil authority received continued emphasis from the Armed Services

during fiscal year 1974. All Services have recognized the need for a strong civil preparedness program, and have developed comprehensive survival and recovery plans to assist civil authority in the event of enemy attack or natural disaster.

The U.S. Army has been designated as executive agent for providing military support to civil jurisdictions. The Commanding General, U.S. Forces Command and Continental U.S. Army Commanders provide planning guidance to State Adjutants General in the preparation of military support for civil preparedness plans in each of the 48 contiguous States. In Alaska, Hawaii, and Puerto Rico similar plans are developed by the appropriate unified command and the State Adjutant General. Current plans call for each Adjutant General, when called to Federal service as a State area commander, to exercise operational control over military units made available for trans-attack and postattack military support requirements. DCPA has eight army reserve civil defense support detachments to augment communications and security personnel at DCPA Federal Regional Centers in the event of enemy attack or natural disaster.

By Any Name—Preparedness Partners!

In the civil preparedness program, DCPA works with the 50 States, Puerto Rico, the Canal Zone, the Virgin Islands, Guam, American Samoa, and the District of Columbia; and through the States, with 3,044 counties, and more than 2,000 city governments.

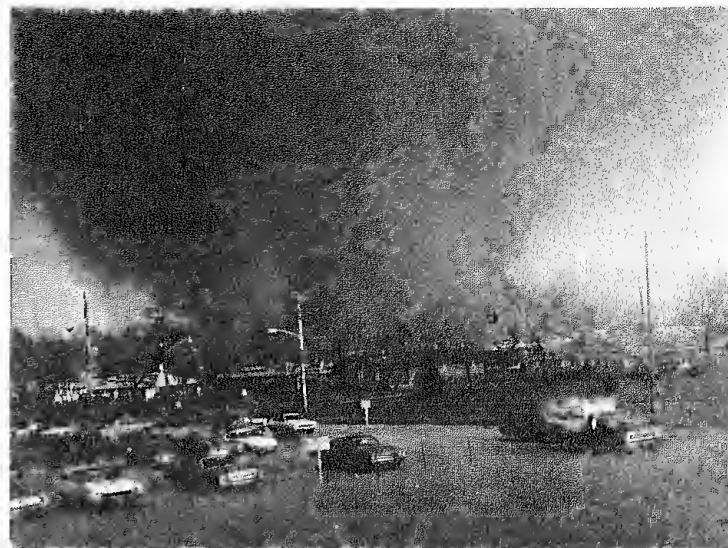
Since its beginning as a nationwide program, civil preparedness has functioned under many different names. At the Federal level, it has moved from the early Council of National Defense through six name changes to the present Defense Civil Preparedness Agency. This latest name change (from the Office of Civil Defense) was in line with expanded emergency responsibilities, including planning assistance to cope with both nuclear attack and natural disasters.

State agencies use more than 30 different titles—"civil defense" alone or in combination with "disaster," "disaster relief," "disaster control," or "emergency planning" . . . "emergency services" alone or in combination with "disaster" . . . "civil defense mobilization" . . . "disaster" . . . "emergency government" . . . "civil preparedness."

An even greater variety exists among local governments—so there are many different combinations—all headed in the same direction, with the

same objective: To be ready to protect people and property in any type of disaster. By any name, they are all partners in civil preparedness.

The main thrust of the National Civil Preparedness Program is to help States and communities develop dual-use emergency systems to protect



As a tornado roared over Xenia, Ohio, April 1974, spraying debris everywhere, photographer Fred Stewart snapped this shot from the second floor of a hospital less than two blocks away. At the last moment, the tornado veered and missed the hospital.

people from the effects of nuclear attack and peacetime disasters. One way this is accomplished is through the top priority activity of On-Site Assistance. The value of OSA is described in the following comments of mayors:

Winchester, Tenn.—Herman A. Hinshaw, Mayor

"We realize that had we not had On-Site Assistance, and more recently an all system exercise, we could have had more deaths and certainly more injuries (tornadoes, April 3-4, 1974). It is my personal feeling that any city or county that has not engaged in OSA such as we have, definitely has missed the boat."

Laurel, Miss.—W. L. Patrick, Jr., Mayor

" . . . Since On-Site Assistance, we have experienced numerous emergencies (tornadoes, floods, industrial accidents, etc.). It has been our observation that we are much better prepared to meet these emergencies than we were before. Many of the improvements that were called for in the OSA Action Plan have been in a material sense, such as new equipment and facilities, but our greatest and perhaps more heartwarming change seems to be in the attitude and determination of the various individuals involved in emergency operations."

In addition, reports made by Civil Preparedness Coordinators from many other localities, provide

similar comments, and many specified how the capability to cope with particular disasters was im-



Representatives of Federal agencies work to help people who suffered losses from the April 1974 floods in the Hattiesburg, Mississippi, area.

proved by the acquisition of equipment and facilities, additional training, and/or planning assistance provided as a result of, or part of, On-Site Assistance.

Paying for the Program

Funds available during fiscal year 1974 for carrying out Defense Civil Preparedness Agency operations totaled \$85.8 million; \$82.0 million of new fiscal year 1974 appropriations, \$3.7 million carried over into fiscal year 1974 from prior year appropriations, and nearly \$0.1 million in reimbursable orders from other agencies. Of this total, \$84.7 million was appropriated by the Office of Management and Budget late in calendar year 1973, for execution of the fiscal year 1974 program; \$1.1 million was apportioned at yearend to finance part of the fiscal year 1975 program.



CAPABILITY TO COPE

"DCPA's goal is total community preparedness which combines the objective of nuclear attack preparedness under DCPA's strategic defense mission with readiness to cope with everyday emergencies. The one objective supports and complements the other."

John E. Davis

Director, Defense Civil Preparedness Agency

The ability to conduct coordinated emergency operations must exist where the people are located; i.e., in the local jurisdictions throughout the United States. This means that the Federal Government must continue to meet its responsibilities under the Federal Civil Defense Act of 1950, as amended, to provide leadership, guidance, and assistance to the State and local governments.

It is in the interest of the American people that civil government and civilian resources be as effectively organized and ready as possible to contend with nuclear attack or other disaster. The civil preparedness structure at Federal, State, and local levels of government provides the organization, systems, and people to do this.

On-Site surveys of community emergency preparedness, followed by development of action plans for eliminating preparedness deficiencies through a combination of Federal, State, and local self-help efforts, is an eminently practical process.

ON-SITE ASSISTANCE (OSA)

Preparedness for disaster provides the insurance needed in event of nuclear attack. All sectors of American life must be involved to achieve a high degree of readiness.

On-Site Assistance is the major priority activity of the Defense Civil Preparedness Agency. It involves direct on-site (at the locality) Federal and State efforts to assist local governments in improving their emergency operational capability to cope with natural disasters and other peacetime emergencies in addition to nuclear war. On-Site Assistance consists of specific steps to (1) ascertain probable hazards, (2) assess existing local capabilities in terms of DCPA readiness standards, (3) determine deficiencies, and (4) develop an action plan to meet requirements and correct deficiencies identified. An action plan leads to concrete and immediate assistance, in many cases, in the form of surplus property and other Federal property grants and loans, and planning, training, and technical assistance from DCPA.

OSA requires that civil preparedness be viewed as a total preparedness effort. This totality is made up of many parts; some are tangible, such as communications equipment and emergency operating centers. Others, such as planning, training, and motivating, are intangible. OSA aims at helping localities tie together their existing assets, both tangible and intangible, into the ability to conduct emergency operations. Thus, On-Site Assistance is basically people-oriented, emphasizing planning, organizing, training, and exercising.

Tangible accomplishments resulting from OSA are impressive, such as revised and improved operations plans; developed or improved Emergency Operating Centers; developed school disaster plans; coordinated disaster emergency action plans with the media; and equipment obtained from surplus property or contributions loan program for civil

defense but authorized for use in peacetime emergencies such as firefighting.

OSA ties together all facets of emergency preparedness to develop a community organization capable of saving lives in emergency.

By the close of fiscal year 1974, OSA visits by joint DCPA Regional and State civil preparedness teams had been made or were scheduled for 752 localities in 48 States, Guam, the Virgin Islands, and Puerto Rico. OSA Action Plans which scheduled readiness assistance for communities numbered 453 at yearend.

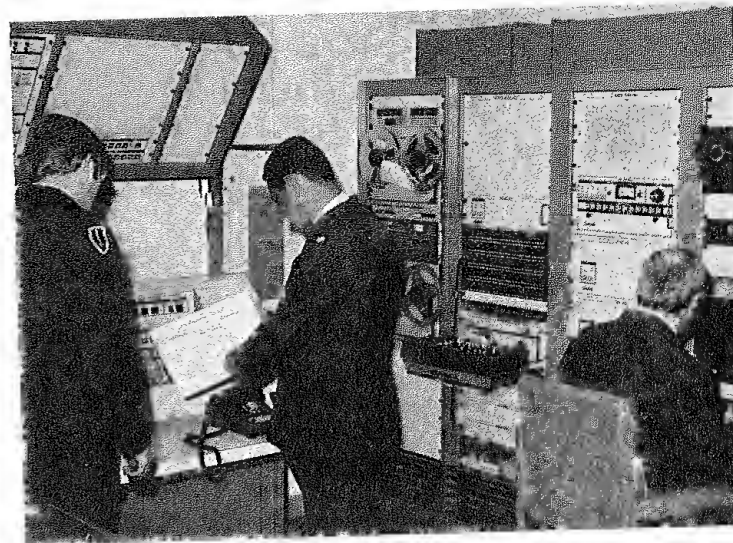
CIVIL PREPAREDNESS MILITARY RESERVE MOBILIZATION DESIGNEE PROGRAM (CP MOBDES)

Initiated in fiscal year 1973, the CP MOBDES program provides significant improvement in local civil preparedness. Under the program, Army, Air Force, and Marine reservists—officers, warrant officers, and enlisted members of the Individual Ready Reserve, both male and female—have the opportunity to serve as Civil Preparedness Mobilization Designees, with training and duty at local civil preparedness agencies or at Regional Offices of the Defense Civil Preparedness Agency.

The objective of the program is to strengthen the emergency capabilities of civil governments—local, State, and Federal—by augmenting these civil preparedness agency staffs with trained reserve MOBDES personnel. These personnel serve as specialists on the civilian staffs of the civil preparedness agencies. The MOBDES program is related primarily to general war preparedness, but also pays dividends in peacetime emergency preparedness. In case of a national emergency, MOBDES augmentees have “hip-pocket” orders calling them to active duty in the job for which they have been trained at the agency where they are assigned.

Benefits for the CP MOBDES personnel include the opportunity of earning the required point credit for a satisfactory retirement year; and training and duty stations within daily commuting distance of their homes.

During fiscal year 1974, allotments of 600 Army, 2,962 Air Force, and 50 Marine spaces were authorized by the Secretary of Defense for personnel assignments to Civil Preparedness Offices. By the close of fiscal year 1974, there were 1,003 Army, Air Force, and Marine Corps assignments to Regional, State, and local civil preparedness offices.



Mobilization designees using communications equipment at a DCPA National Warning Center. MOBDES personnel earn point credit for a satisfactory retirement year by serving as specialists on civilian staffs of civil preparedness agencies.

WARNING

Certain types of disasters—such as river floods, droughts, and forest and grass fires—are preceded by discernible weather changes. Similarly, hurricane and tornado seasons can be anticipated. For many of these frequently occurring natural threats, existing prediction and warning systems are sound but require extension and modernization.

Where prediction is possible, warning of the coming event is a major factor in the protection of life and property. Warning involves: (1) Detecting the signs of a disaster threat, (2) calculating the time and place of impact, and (3) transmitting the warning to officials and the public. Timely and accurate warning and appropriate public response are central objectives of responsible officials at all levels of government.

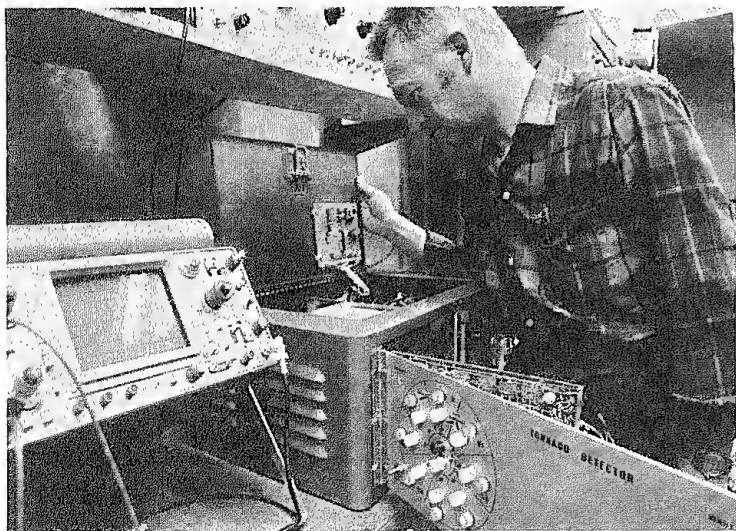
Federal warning systems are designed to pass warning to strategic points from which State and local governments warn the public. The Civil Defense Warning System (CDWS) operates throughout the continental United States, including Alaska, and interconnects Federal, State, and local warning systems in a single warning network. Separate warning systems serve Hawaii, American Samoa, Guam, Puerto Rico, and the Virgin Islands.

National Warning System (NAWAS)

The Federal portion of the CDWS is the National Warning System (NAWAS). Almost instantaneous attack warning information can be disseminated over NAWAS to State and local warning points from any one of the three National Warning Centers continuously manned and operated for

DCPA by U.S. Army Communications Command-CONUS (USACC-CONUS). The primary National Warning Center is in Cheyenne Mountain, Colorado Springs, Colo.; and the other National Warning Centers are located at Denton, Tex., and Olney, Md. The system includes 346 warning points at Federal installations throughout the United States; and 875 State and local warning points, for a total of 1,221 as of the end of the fiscal year. In addition, NAWAS extensions have been installed with Federal matching funds assistance at 350 locations important to civil preparedness operations.

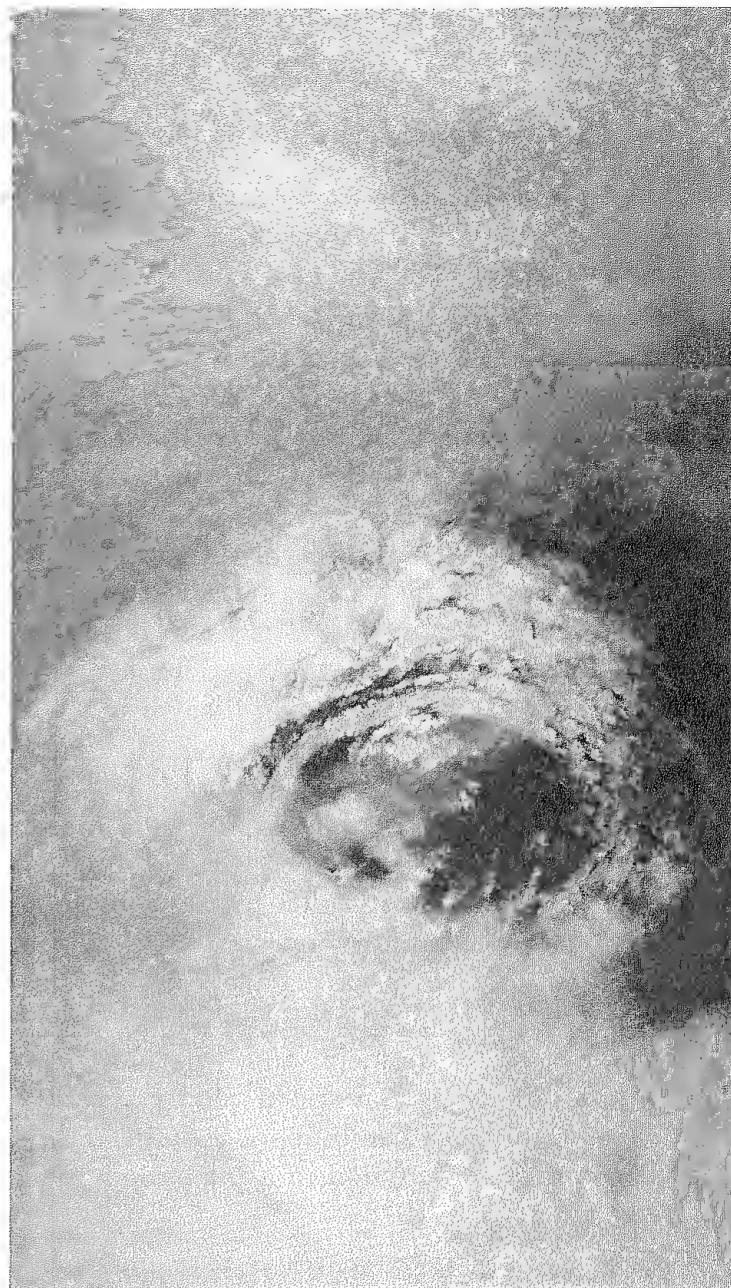
Severe weather information originated within a given State is disseminated by National Weather Service officials within the same State and across the borders of adjacent States by NAWAS. DCPA has placed NAWAS installations at 217 National Weather Service facilities. For several years, DCPA has assisted the National Weather Service of National Oceanic and Atmospheric Administration (NOAA) in the dissemination of severe weather information. In June 1973, DCPA entered into a broader agreement with NOAA to further community disaster preparedness by joint planning, coordination, and program effort, involving all applicable agency activities.



William L. Taylor, project leader at the Wave Propagation Laboratory, one of National Oceanic and Atmospheric Administration's Laboratories in Boulder, Colo., calibrates a new electronic tornado detector which senses the electrical impulses emanating from a tornadic thunderstorm, and shows the general direction from which the signals are coming.

"Dual capability," the watchword for civil preparedness, means that DCPA systems built over the past decade to protect people in the event of nuclear attack are being used whenever possible for peacetime emergencies. No matter what the emergency, dual-use systems can add to the local capa-

bility to save lives and prevent needless suffering when disaster strikes. The National Warning System (NAWAS) is particularly adaptable as a dual-use system.



The "eye" of a hurricane as photographed from a U.S. Air Force reconnaissance plane 11 miles above the earth and 90 miles north of Grand Turk Island in the Bahamas.

On April 3, 1974, tornado funnel sightings were reported over NAWAS to the Louisville, Ky., National Weather Service Office. These sightings combined with radar observations, enabled a tornado warning to be issued to five counties in Kentucky over NAWAS, commercial broadcast stations and the Weather Wire Service prior to tornado touchdown. As a result, the Louisville-Jefferson County outdoor warning system was activated 19 minutes prior to tornado touchdown. Although approximately 900 homes were destroyed, the advance warning in which NAWAS played an

important part contributed to limiting the death toll to two persons.

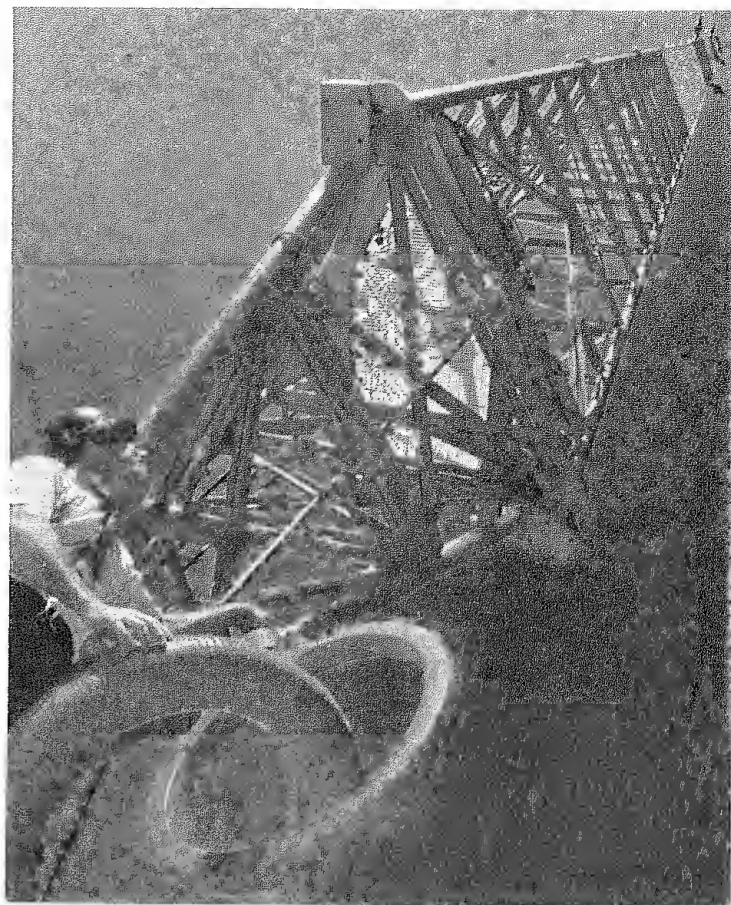
The use of civil defense communications systems for natural disaster warning is authorized by Executive Order 11795, effected shortly after the close of the fiscal year on July 11, 1974. This order replaced Executive Order 11575, December 31, 1970. Further dual-use will be sought wherever possible.

Decision Information Distribution System (DIDS)

DIDS is a low-frequency radio network being developed by DCPA to provide more complete and faster warning coverage. DIDS could provide warning information directly from the three National Warning Centers to all levels of government in the continental United States. Construction on the first transmission facility located at Edgewood Arsenal, Md., is complete. Ten transmission facilities are proposed nationwide. The first will serve a 10-State area from Virginia to Massachusetts, and has been tested extensively during fiscal year 1974. DIDS could form the basis for automatic indoor home warning. Special devices have been developed making use of low-frequency transmissions, which can provide automatic alert and warning information for the public. Acquisition and use of these devices would be voluntary on the part of individual citizens. DIDS is expected to find an important peacetime application for warning of local natural disasters. Equipment and procedures for this purpose are being developed jointly with the National Oceanic and Atmospheric Administration (NOAA), and will be tested in a pilot community during calendar year 1975.

STATE AND LOCAL WARNING

State and local governments use a variety of communications to disseminate warning and other emergency information from 875 NAWAS warning points to thousands of local warning points. Telephone and radio are widely used for alerting local civil defense personnel and government officials. Local warning systems to alert the public include both indoor and outdoor warning devices. Sirens are preferred for outdoor warning—although horns, whistles, and voice sound systems also are used. Indoor warning devices include telephone, radio, and various commercial communications facilities such as public address systems and circuits for transmitting background music to public places. Community Antenna Television (CATV),



Decision Information Distribution System (DIDS) prototype radio transmitter facility at Edgewood, Md., northeast of Baltimore, is a system being developed to transmit voice warning of enemy attack or peacetime disaster by radio to key points and personnel.

commonly known as Cable Television, is being used increasingly for dissemination of natural disaster warnings to the public.

Most State and local warning points are located within existing governmental agencies such as law-enforcement or fire department headquarters which are continuously manned. This assures 24-hour warning coverage for the areas served by each warning point. During the year, DCPA continued to provide guidance and financial assistance to State and local governments to strengthen their warning systems.

EMERGENCY OPERATIONS; COMMAND, CONTROL, AND COMMUNICATIONS

DCPA has continued to advocate dual-use of facilities, equipment, and personnel to cope with day-to-day as well as attack emergencies. The civil preparedness communications systems, warning systems, and Emergency Operating Centers are available and extensively used for any type of emergency. Any local government capable of coping with peacetime emergencies is a long way down

the road in its capability to deal with the effects of nuclear attack.

Every OSA survey focuses on the existence (or lack) of a community Emergency Plan, and an Emergency Operating Center (EOC)—a central, protected location where officials of government may gather in time of disaster to coordinate emergency actions. Under its financial assistance program, DCPA can match the cost to local government for construction of an approved EOC.

In examining the EOC concept, it becomes clear that the most vital element is a flexible, reliable, and coordinated system of communications.

Communications between DCPA National Headquarters, the eight DCPA regions, and the States are provided through use of the first three systems described below. These systems are operated and maintained by the U.S. Army Communications Command (USACC), with policy guidance and requirements furnished by DCPA.

Civil Defense National Teletype System (Primary)

The Civil Defense National Teletype System (CDNATS) is one of two primary systems used for transmitting civil defense communications between DCPA National Headquarters, a relocation headquarters, the eight DCPA Regional Offices, the 10 Federal Disaster Assistance Administration Offices (FDAA), the 10 General Services Administration, Office of Preparedness (GSA/OP) Offices, the 50 States, Puerto Rico, the Virgin Islands, the District of Columbia, and four locations in Canada. The present system permits simultaneous automatic message switching among all connected terminals. This automatic switching feature provides unattended service after normal duty hours, and allows users to send to a single address or to a multiple number of addresses within the system.

Civil Defense National Voice System (Primary)

The Civil Defense National Voice System (CDNAVS) is the second primary system, and is comprised of both AUTOVON and dedicated, leased, full-period circuits. AUTOVON is used between DCPA National Headquarters, a relocation headquarters, and the eight DCPA Regional Offices. Circuit preemption capability has been provided. The dedicated circuits provide direct lines between each DCPA Regional Office and its States. During the year, the 10 GSA/OP and 10 FDAA Regional Offices and two DCPA field offices were added to the system. Because of recurring

disasters, a second voice circuit has been installed to 10 disaster-prone States.

Civil Defense National Radio System (Backup)

The Civil Defense National Radio System (CDNARS) is a high-frequency radio network used for backup to the teletype (CDNATS) and voice (CDNAVS) systems. Control facilities for the radio system are collocated with the wireline voice and teletype positions to make them readily available during emergencies. During the year, radio equipment was installed in Michigan making CDNARS operational in 49 States, the District of Columbia, Puerto Rico, and the Canal Zone—as well as in a DCPA relocation headquarters and the eight DCPA Regional Offices. Installation agreements have been signed with Vermont and Guam. During the fiscal year, the CDNARS upgrade for the Regions began with DCPA Region Six being provided electromagnetic pulse (EMP) protection and new HF 10 KW radio equipment.

Radio Amateur Civil Emergency Service (RACES)

RACES is made up of amateur radio operators who perform emergency communications functions as an important supplement to State and local emergency communications operations. During fiscal year 1974, RACES and local Citizens Band radio networks were called into service to support police, fire, and rescue operations during disasters. Many of the RACES and Citizens Band operators have been trained as "tornado spotters" in the National Weather Service "SKYWARN" program and were used extensively during the fiscal year.

During the year, DCPA participated in the preparation of Department of Defense comments in a formal inquiry by the Federal Communications Commission (FCC) into RACES (FCC Docket No. 19723). As of June 30, 1974, the FCC had engaged in proposed rulemaking, and DCPA was participating in preparation of DoD comments on these rules.

State and Local Emergency Communications Planning

During fiscal year 1974, State and local governments continued to develop emergency communications plans based on DCPA guidance. This guidance provides for the most effective use of existing communications resources and recommends acquiring additional communications equipment only when justified to meet a requirement. At the close of this fiscal year, a total of 47 States and

1,109 local governments had completed Communications Planning Reports.

Broadcast Station Protection Program

Under the Broadcast Station Protection Program, key broadcast stations are protected from radioactive fallout, and are provided with an emergency power generator, programming equipment, and a radio link to an associated Emergency Operating Center. This gives these stations the capability to remain on the air to broadcast Presidential, State, and local information under fallout conditions. Also, this capability permits these stations to remain on the air to broadcast essential information when power fails during natural disasters and other commercial power failures.

A total of 595 AM stations have been included in this program, and 113 of those stations have both AM and FM broadcasting capability. By June 30, 1974, fallout protection had been completed in 592 stations, and 585 of these had also been provided the required equipment. No additional stations were included in the program this fiscal year. Radio links to associated EOC's were provided for 5 stations as the EOC's were completed. Other actions were taken to maintain the present emergency broadcasting capability. During the year, several stations used the equipment furnished under this program to broadcast essential information when power failed during tornadoes and heavy flooding in the central part of the country.

Regional Emergency Operating Centers

To assure continuity of Federal field emergency operations, underground Federal Operating Centers have been constructed in six of the eight DCPA Regions. The underground centers for the remaining two centers are in the planning and design process. The underground centers house the Regional staffs of DCPA and the representatives of other Federal Government agencies. The buildings provide substantial protection against the effects of nuclear weapons. They contain a 30-day supply of fuel, food, and other supplies and have their own water supply and power for emergencies. These centers have communications that tie all the States in their Regions into one network with the Federal Civil Defense System.

Underground centers now operational are located at Region One, Maynard, Mass.; Region Two, Olney, Md.; Region Three, Thomasville, Ga.; Region Five, Denton, Tex.; Region Six, Denver, Colo.; and Region Eight, Bothell, Wash.

The centers to be completed are Region Four in Battle Creek, Mich., and Region Seven, in Santa Rosa, Calif.

Plans call for providing each Regional Center with protection against the effects of electromagnetic pulse (EMP). During fiscal year 1973, EMP protection was provided at Regions Two and Three. In fiscal year 1974, EMP protection design was completed for Regions Five, Six, and Eight. EMP work was completed for Region Six. It is anticipated the EMP construction will be accomplished for Regions Five and Eight, and EMP protection design will be completed for Region One during fiscal year 1975.

State and Local Emergency Operating Centers

An Emergency Operating Center (EOC) is a protected facility where the government executive, his department heads, and other key officials can exercise direction and control over those activities of government which are essential to the saving of lives, safeguarding of property, and restoration of governmental services during and following a major emergency. The Center is a focal point for warning and emergency communications—including emergency public information. Although EOC's are promoted by DCPA primarily for use in event of nuclear attack, they are frequently used by local governments during peacetime disasters such as hurricanes, earthquakes, widespread fires, floods, and ice and snow storms. In many communities, EOC's are also in day-to-day use as the normal headquarters of government units such as civil defense, police or fire departments. Such dual-use is encouraged by DCPA.

On February 27, 1974, a fire and explosion at the Helena Chemical Company 6 miles north of Altus, Okla., that sent caustic chemical fumes drifting over a wide area, resulted in a number of rapid emergency actions:

Local and State civil defense officials prepared to evacuate nearby residents. The Oklahoma State Health Office dispatched health personnel to the scene with toxic measuring equipment. Area hospitals were alerted and supplies of atrophine and other anti-poison medications were made ready. The State Military Department was alerted for a possible call-up, and nearby Altus Air Force Base sent a chemical, biological and radiological specialist to the scene.

Although damage to the plant was extensive, there were no casualties, and strong winds dissi-

pated the caustic fumes away from the southwestern Oklahoma community.

As a result of a DCPA On-Site Assistance project in 1972, improvements had been made to the local communications system, thereby enabling key emergency response actions for the chemical explosion to be coordinated at the Altus Civil Defense Emergency Operation Center.

Development and construction costs of EOC's which meet Federal standards may be matched up to one-half with Federal funds. During the fiscal year, approximately \$6.5 million in Federal funds were obligated for the planning, design, construction, and equipping of State and local EOC's. Federal standards, recommended for all EOC's and required for Federal financial assistance, include fallout protection, emergency generators and fuel, sufficient food, water, and medical supplies to maintain the emergency staff for at least 14 days, a ventilation system, emergency communications and warning facilities and equipment, and sufficient space for an augmented staff.



View of Municipal Building and Emergency Operating Center, Athens, Tenn. This is one of the first local EOC's to incorporate electromagnetic pulse (EMP) protection in its design.

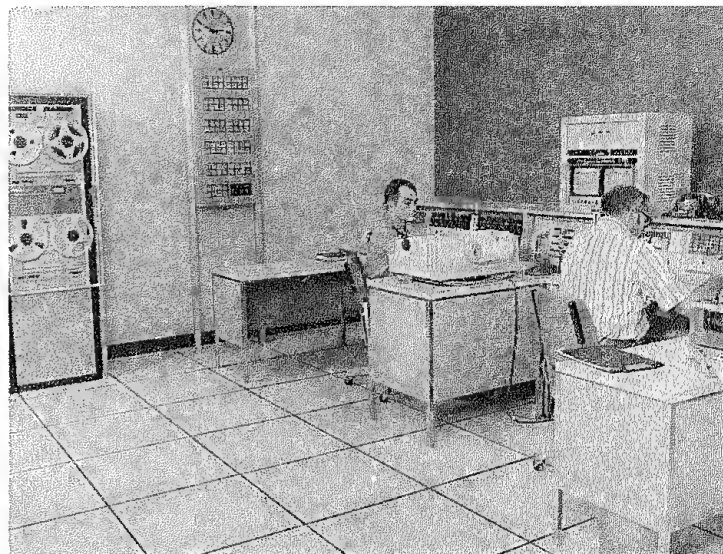
Damage Assessment

Executive Order 10952, as further delegated by DoD Directive 5105.43, requires the Defense Civil Preparedness Agency to develop plans and operate systems to undertake a nationwide postattack assessment of the nature and extent of the damage resulting from enemy attack and the surviving resources. To meet this responsibility, DCPA conducts continuing planning in cooperation with other components of the Department of Defense, other Federal agencies, and State and local governments for both direct on-site assessment and report-

ing of damage and indirect assessment. Indirect damage assessment is achieved by means of calculations based on the type, size, and location of nuclear detonations and their proximity to facilities and resources of interest and the relative physical vulnerability of these facilities to nuclear weapons effects. To further these capabilities, emergency reporting systems are maintained, and a variety of computer programs are designed, developed, and operated. These computer programs are also used for preattack studies of vulnerability. Additionally, through simulation techniques they provide for the analysis of a wide variety of possible attacks. These tools enable DCPA to understand the problems which the nation and its cities would face in a nuclear war and to develop more effective civil preparedness programs.

Emergency Operations Planning

Realistic planning requires realistic assessment of threats and the practical consideration of what can be done to minimize and mitigate the threats—



Communications center located in the Athens, Tenn., Municipal Building Emergency Operating Center.

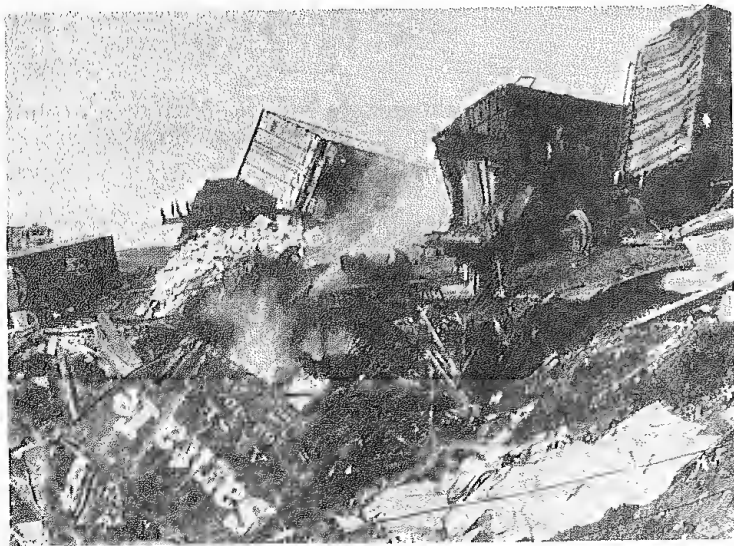
together with the confidence that the capability to protect people and property can be achieved. Emergency Operations Planning translates the results of DCPA research, operational analysis, and field tests into practical civil preparedness policy and operational systems for use at State and local level. Projects during the year included:

- *Crisis Relocation Planning.*—Studies show that an attack upon the United States very likely would be preceded by a period of international tension or crisis. This would constitute "strategic warning," thus providing time for protective actions to be taken. When an international crisis

threatens to result in a nuclear attack, it may be feasible to temporarily relocate residents of high-risk areas to small towns and rural areas (where nuclear weapons probably would not be targeted) provided these people could be adequately housed, fed, and protected against radioactive fallout.

DCPA through its pilot Crisis Relocation Planning (CRP) projects is already investigating the practicability of evacuating high-risk areas when nuclear attack threatens and temporarily relocating nonessential residents of those areas into small-town and rural areas where nuclear blast and fire effects are not likely to occur.

By the close of fiscal year 1974, DCPA's concept of Crisis Relocation was being field tested—with the concurrence and support of State and local governments concerned—to determine feasibility and to define the problem areas associated with the planning. This field testing was being conducted by DCPA, State, and local planners in nine high-risk areas throughout the country: Colorado Springs, Colo.; Dover, Del.; Duluth, Minn.; Great Falls, Mont.; Macon, Ga.; Oklahoma City, Okla.; Springfield, Mass.; Tucson, Ariz.; and Utica/Rome, N.Y. Included in these field tests is the development of procedures which could, when implemented, reduce casualties in peacetime disasters as well as in a nuclear attack. CRP can be used to protect people not only from nuclear blast and fire, but also from the effects of slowly developing natural disasters, for example, hurricanes and floods, and from certain types of peacetime accidents, such as those resulting in the release of harmful or lethal fumes into the atmosphere.



Workmen clear wreckage from tracks at derailment between Moore and Norman, Okla., June 13, 1974. A ruptured tank car earlier caused evacuation of thousands of residents. About 70 people were treated in a Norman hospital for fumes inhalation.

● *Evaluation Summary.*—A system for evaluating the emergency readiness of local jurisdictions was developed during fiscal year 1974, and field tested in 89 localities by 130 local, State, and Regional civil preparedness professionals. This system involves evaluating both the tangible and intangible aspects of local readiness for major emergencies, with emphasis on the ability of local executives and department heads to conduct coordinated operations in emergencies that may affect their jurisdiction. Based on comments made by local, State, and Regional personnel participating in the field test, the evaluation handbook has been improved, and it will be given final field-testing in the first half of fiscal year 1975.

● *Disaster Operations Handbook.*—This handbook for local governments was originally published in 1972, and contains action checklists for local operations in 13 specific types of peacetime disasters, as well as for attack-caused emergencies. Work in 1974, in close collaboration with the Atomic Energy Commission, produced an additional checklist which covers operations needed in the event of accidental release of radioactive material resulting from an incident at a nuclear power plant. This checklist provides a basis for joint planning by local, State, and Federal agencies and utilities engaged in the development of nuclear power facilities. An additional checklist covering operations in case of major aircraft accidents is also being developed, in cooperation with the Federal Aviation Administration.

● *Computer-Assisted Natural Disaster Operations.*—Work continued during the fiscal year on development and testing of a system to assist local governments to plan for natural disasters. The system, being developed under contractual arrangement with the University of Tennessee, uses existing computer programs as well as data from both the Bureau of the Census and local sources. Outputs include compilations of numbers of people and resources in an area affected by disaster; estimates of requirements to deal with the disaster; and allocation of affected population to temporary lodging. Final testing will be conducted during fiscal year 1975, and the system will be made ready for use by interested local governments and other Federal agencies.

Radiological Defense

DCPA continues to emphasize the importance of effective radiological defense systems which would be vital in the event of a nuclear attack.

These systems are comprised of trained personnel and radiological instruments in support of State and local emergency operations plans. Since radiation cannot be detected by the human senses, radiation detection and measuring instruments must be used for detection and monitoring. The instruments are required to measure exposure rates and cumulative exposures of personnel outside and inside shelters. The instruments used by trained people will provide information on radioactive fallout patterns and intensities. This information is necessary to assure the safety of the population in recovery work and in rehabilitation.

DCPA expertise in radiation, born of the fallout threat, can help guard against peacetime radiation incidents as the Nation turns to nuclear power production to meet energy needs. Realizing that systems in everyday use have a greater probability of being available for use in emergencies, stress has been placed on dual-use of radiological detection and monitoring resources. Application of this concept has been as follows: (1) To incorporate ongoing peacetime activities into emergency response systems, and (2) to make available DCPA RADEF resources to enhance peacetime emergency operational capabilities.

The increasing use of nuclear power and radioactive materials continues to raise the possibility of peacetime accidents resulting in hazards to life and property. Therefore, DCPA worked with other interested Federal agencies to delineate Federal agency responsibility in connection with nuclear incident planning at the Federal level and to provide planning assistance to State and local governments. On January 24, 1973, the Office of Emergency Preparedness issued a notice in the Federal Register assigning Federal agency responsibility for fixed nuclear facility incident planning. The U.S. Atomic Energy Commission was made the leading operating agency, and DCPA was made responsible for:

1. Assistance to State and local authorities in planning the general emergency preparedness actions required in response to nuclear accidents, consistent with AEC guidance.

2. Recommendations and guidance on the use of the civil defense radiological monitoring system.

State and local authorities are receiving assistance in developing general emergency preparedness actions for all types of radiological emergencies including those at fixed nuclear facilities. Radiological emergency response has been integrated into

all DCPA program elements, especially On-Site Assistance projects.

Distribution of RADEF Instruments.—By fiscal year 1974, the majority of DCPA radiological instruments had been issued to the States. These instruments are distributed within the State as operational monitoring sets, shelter monitoring kits, aerial survey monitoring sets, and high-range dosimeters, with associated chargers for postattack radiation control of emergency services personnel. Instruments are also stockpiled within the States at strategic locations where they will be readily available for distribution during an emergency.

Operational Monitoring.—By June 30, 1974, there were 73,759 radiological monitoring operational sets issued for operational monitoring. During the fiscal year, emphasis was placed on the establishment of monitoring and reporting locations and capability throughout the United States which could be expanded during a period of increased international tension. In consonance with the dual-use concept, many of these locations are in emergency service organizations such as police and fire departments where there could be peacetime application of the equipment in radiological accidents or incidents. Emphasis was also placed on developing a radiological monitoring and reporting capability in those geographical areas not having this capability, as determined through development of emergency response plans.

An example of peacetime use of both RADEF-trained personnel and DCPA-granted radiological equipment occurred on December 20, 1973, when a truck with radioactive material jackknifed on an icy road in Eastern Pennsylvania. A cask containing a radioactive sealed source was dumped on the road. It was not DCPA-owned radioactive material; however, Monroe County's civil defense director used his trained RADEF personnel as well as DCPA-granted radiological equipment to make initial surveys until State radiation personnel arrived on the scene. It was ascertained that there was no contamination of the area.

Shelter Monitoring.—Radiation measurements in each shelter would serve as a basis for determining (1) the best protected shelter areas in a facility, (2) the advisability of using adjoining areas of the facility to alleviate crowding when radiation intensities permit, and (3) the amount of radiation exposure to be recorded for shelter occupants. Many shelters would serve also as operational radiological monitoring locations and radef information

could be provided from them to local government officials.

By June 30, 1974, there were a total of 120,401 public fallout shelters provided with at least one radiation monitoring kit.

Aerial Monitoring.—All 50 States, the District of Columbia, and Puerto Rico have been furnished equipment for the development of an aerial monitoring capability. A total of 841 aerial survey monitoring sets and supporting equipment have been issued. The aerial monitoring plans, as a part of each State's emergency operations plan, have continued to be developed. These plans are in consonance with the North American Air Defense Command (NORAD) Plan for "Security Control Air Traffic and Navigation Aids (SCATANA)." Regional and State staffs have continued to teach Aerial Monitor courses, and offer refresher training to previously trained aerial monitors.

Postattack Radiation Exposure Control.—The States have been supplied with approximately 1,898,000 dosimeters and 83,400 dosimeter chargers for use by emergency services personnel who would conduct postattack emergency operations. The dosimeters are for exposure control through measurement of the workers' accumulated radiation exposure.

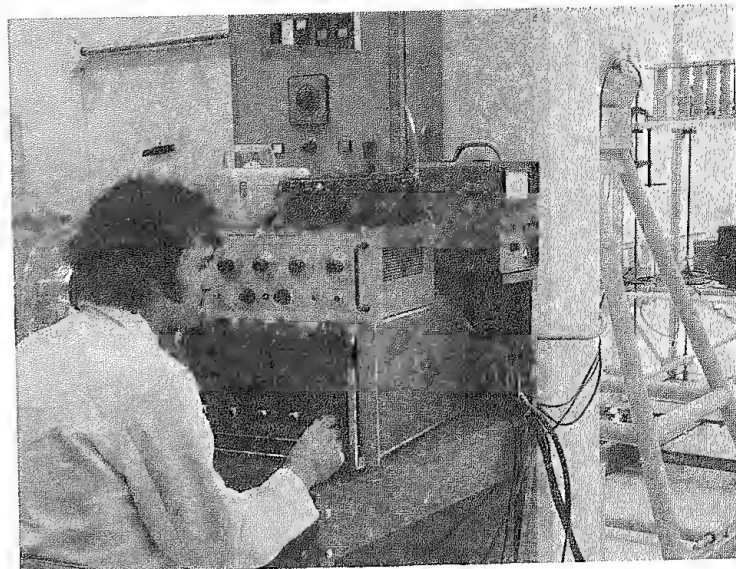
RADEF Equipment Inspection, Maintenance, and Calibration.—To give a reliable operational capability, RADEF instruments must be periodically inspected, recalibrated, and repaired. The 100-percent federally funded inspection, maintenance, and calibration program was continued during the fiscal year for the 50 States, the District of Columbia, and Puerto Rico.

All civil defense operational monitoring instruments that have been distributed to operational monitoring and reporting stations for emergency use are calibrated and serviced every two years at State calibration facilities. Shelter kits and other self-support instruments are on a four-year maintenance cycle. Major repairs are made at these maintenance and calibration facilities. DCPA has developed radiation devices suitable for calibrating all ranges of the radiological instruments being used, without significant radiation exposure to the operator.

Radiological Engineering.—The DCPA Radiological Defense Program is supported by a modest engineering effort which consists of in-house projects and services received under contract with the Atomic Energy Commission, National Bureau of

Standards, and the U.S. Army Communications Command.

DCPA participation in the cooperative Federal Agency Program to lend assistance to State and local governments in peacetime nuclear incident planning resulted in the development and procurement of special Geiger-Mueller tubes and probe assemblies to modify 1,500 CD V-700 low-range survey meters. The modified CD V-700 will be useful to local communities in coping with day-to-day emergencies which involve radioactive materials.



Electronics technician Jose D. Cortes, at DCPA's Radiological Defense Instrument Test Facility, tests Geiger-Mueller tubes (in rack at upper right) for their response to a known field of gamma radiation produced by the source mounted on steel legs beyond the heavy concrete wall. They are an integral part of the CD V-781 aerial survey meters which could be used after a nuclear attack or major nuclear accident to measure ground level radiation from the air. The Test Facility at the Washington, D. C., Navy Yard is operated for DCPA by the U.S. Army Communications Command.

Fallout Forecast Data.—Under contract with DCPA, the U.S. National Weather Service continued to disseminate data on upper wind observations throughout the continental United States, Alaska, Hawaii, and Puerto Rico. Approximately 70 National Weather Service observatories routinely take twice-daily observations of direction and speed of upper winds. This raw data is computer processed into fallout prognoses for more than 100 points in the United States and Canada. The fallout forecast message provides information for use at 12, 18, and 24 hours after the twice-daily observations. The forecast messages are calculated for particles originating at the 100-millibar level (approximately 53,000 ft.) that fall to the ground within a 3-hour period. This information will be used at Emergency Operating Centers to predict

geographic areas likely to be affected by radioactive fallout.

Emergency Equipment

One hundred thirty communities in 27 States were aided during fiscal year 1974, through the loan of DCPA emergency power/water supply equipment.

The loans helped these local governments recover from disaster and protect the health and welfare of their residents during emergencies. In many cases, the loans enabled communities to avoid spending their limited funds for new equipment needed only temporarily. In other cases, the needed equipment could not have been obtained in time to meet the emergencies.

For the past 10 years, emergency power/water supply equipment has been made available without charge to communities to help them cope with emergency situations. The equipment includes water pipe, pumps, chlorinators, purifiers, storage tanks, and electric generators. It is stored at 15 locations throughout the country which are managed by the Defense Supply Agency (DSA). The Defense General Supply Center (DGSC) at Richmond, Va., a field activity of DSA, is the National Inventory Control Point for the DCPA emergency equipment.

During the fiscal year, flooding was the primary disaster for which equipment was loaned. For example, 45 large 1,500 gallon per minute pumps were used by 20 communities to alleviate flooding conditions. In all, 640 items of equipment were loaned to communities in 27 States. Additionally, 435,380 feet of 8-inch pipe was on loan to 74 communities.

On December 18, 1973, the City of Hartford, Conn., was loaned 10 generators and six 100 g.p.m. pumps when a power failure developed during a winter storm. During flooding on the Mississippi River in May and June 1974, nine communities in Ohio, Indiana, and Missouri received 13,840 feet of pipe, fourteen 1,500 g.p.m. pumps, and 10 generators.

As a result of Hurricane Agnes, June 1972, much of the DCPA emergency stockpile was depleted at eastern United States depots. A large portion of this equipment continued to be used and was not returned to the depots until fiscal year 1974. During that time, equipment on continuous loan included: 33 large 1,500 g.p.m. pumps, 59 purification units, 55 generators, and 95 tanks of 3,000 gallon capacity.

Tests and Exercises

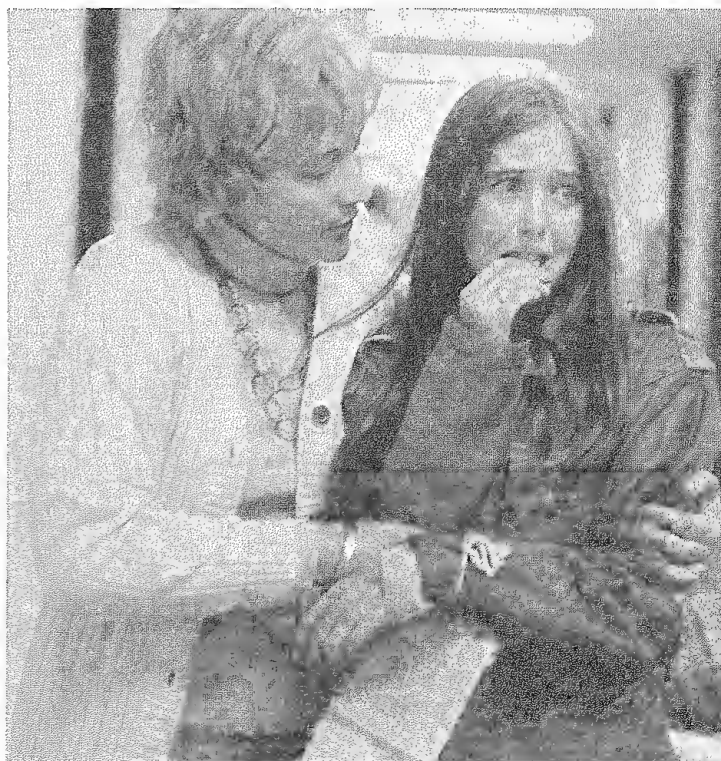
Fiscal year 1974 saw a continuation of individual exercises for selected local governments. These local exercises are being scheduled in on-site assistance action plans to meet the particular needs of a locality. Exercises being used at the local level are:

1. Emergency Operations Simulation (EOS) to inform and train key officials and department heads in emergency operations;

2. Planning seminars to permit in-depth discussion and study of specific problems of concern to key officials; and

3. Full-scale emergency operations simulation exercises requiring full staff participation and involving government, industry, and private sector interaction and cooperation.

Emergency Operations Simulation (EOS) is an experience which motivates. Few local executives undergo it without resolving that civil preparedness needs more of their attention, or more funds, better planning, or additional equipment and personnel. EOS also provides a test of existing facilities—it can demonstrate to top officials and budget-makers whether an EOC or emergency plans are equal to the potential disasters for which they are designed. In an on-site assistance project, an EOS may be used to evaluate a community's resources, pinpoint its deficiencies, or show the steps needed to remove them. An EOS also demonstrates the results of on-site assistance.



Girl being cared for in mental health center during Richland County, Columbia, S.C., civil defense emergency medical exercises, designated as "Carolina IV."

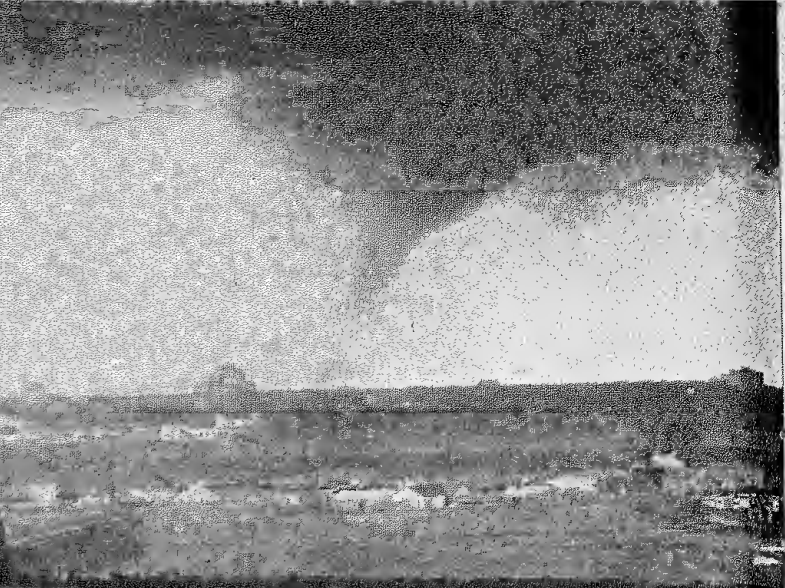
There were 190 Emergency Operations Simulation exercises held throughout the United States during fiscal year 1974, with 6,545 participants.



James W. DeLoach, Civil Defense Director, discussing the Richland County, Columbia, S.C., medical exercise with Dr. Peggie Shealy.

DCPA Headquarters' staff members participated in a worldwide command post exercise sponsored by the Joint Chiefs of Staff (JCS) during fiscal year 1974. Members of the staff provided round-the-clock representation for DCPA in the National Military Command Center from Monday morning, May 20, through noon on Friday, May 24, 1974. Other Headquarters' staff members acted as exercise controllers. On June 24, 1974, a DCPA-sponsored seminar regarding this exercise was conducted. The first session of the seminar consisted of background briefings presented by DCPA and staff members of the JCS. The second session was attended by selected representatives of DCPA, JCS, and the various DoD commands and agencies. This portion of the seminar consisted of a discussion of the various problem areas which surfaced during the background briefings, and the interrelations and interfaces between the civil/military residual capability assessment and reporting systems.





"ALL-EFFECTS" PROTECTION

"There must be clear evidence throughout the country that we, as a Nation, are prepared, that we have the spirit and will to do what is necessary to defend the country, and to insure its well-being. . . . The spirit of preparedness must resound so that any potential enemy can discern it, and can see that he cannot set out on a cheap adventure at our expense."

Gen. Creighton W. Abrams
U.S. Army Chief of Staff

Although the United States always works to maintain and assure continuing peace, a major threat facing the world today is the possibility of nuclear conflict. All mankind must be concerned with the quantum jump in the destructiveness of modern weapons of war and their proliferation. Balancing these factors, however, is man's rapidly escalating awareness of the need for world peace. Both the power of these weapons and the desire for peace have dictated the movement toward detente—the relaxation of tensions among the nuclear powers—they have dictated the need for negotiation.

Civil preparedness—protection for the population—is an important element of our Nation's strategy of balance and deterrence. The Soviets, too, recognize the need for a strong civil defense program—a program which is endorsed and supported by top party and government officials, and which embraces every man, woman, and child in the land. There are many indications of the importance of this Soviet civil defense program:

- It was Party Chief L. I. Brezhnev himself who called for strengthening civil defense at the 23rd Party Congress, held in 1966.

- Brezhnev's mandate was translated into law which linked civil defense with the overall defense of the land and required civil defense instruction for students in all secondary, vocational, and technical schools and a compulsory minimum of 20 hours of civil defense training for the entire adult population.

- With the appointment of A. T. Altunin in 1972, the position of Civil Defense Chief of the USSR was upgraded to that of a Deputy Minister of Defense.

- Marshal A. Grechko, Defense Minister of the Soviet Union and member of the Politburo, continued to attach "particular significance" to the civil defense program.

- As recently as December 25, 1973, a top level conference of civil defense staff was held in Moscow, presided over by Civil Defense Chief, Col. Gen. Alexander Altunin and attended by high ranking participants. It was decided to give further emphasis to the civil defense program and to make it part of the thinking of the people at large.

U.S. Secretary of Defense James S. Schlesinger believes the United States must match Soviet capabilities, but fully supports efforts to negotiate for detente in the belief that the Soviet people desire, as do the American people, to live in peaceful co-existence. Further, he believes it essential that the United States maintain a strong civil preparedness organization with an effective nationwide shelter

system as an essential component of our strategic defenses.

THE SHELTER PROGRAM

In 1961, when the Federal civil defense program was made a responsibility of the Department of Defense, the program's basic objective was to assist local and State governments—financially, technically, and administratively—in protecting their residents from radioactive fallout that would follow a nuclear attack on the United States. It was not considered economically feasible for government to undertake major protective programs against “direct” effects of nuclear explosions—initial radiation, blast, heat, and heat-induced fires. The Office of Civil Defense (redesignated in 1972 as the Defense Civil Preparedness Agency) instituted the National Fallout Shelter Survey in late 1961. Substantial progress has been made in the past decade by Federal, State, and local government toward achieving fallout protection for the Nation. More than 228,000 facilities with fallout shelter space have been identified, with a total capacity of about 227 million persons.

As the nationwide program of defense against nuclear fallout radiation moved forward in the 1960's and early 1970's, all State governments and most local governments expanded their emergency preparedness programs to include protection of residents from natural disasters and other peacetime catastrophes, as well as from nuclear fallout. Following this lead, the Defense Civil Preparedness Agency reoriented its effort and instituted a dual-purpose program, designed to help State and local governments develop the emergency operations capabilities needed to cope with peacetime disasters as well as the effects of nuclear attack. Dual use of emergency systems such as communications networks and emergency operating centers is emphasized in this redirected program.

In early 1972, DCPA's peacetime disaster responsibilities and functions were formalized in an agreement with the Office of Emergency Preparedness (whose authorities and functions in this field were assumed in mid-1973 by the Federal Disaster Assistance Administration, an element of the Department of Housing and Urban Development).

Throughout the 1960's, as the Federal Government helped local and State governments plan the protection of their residents from nuclear fallout radiation and peacetime-disaster effects, the DCPA continued its longtime research and investigations on how to protect people from the blast and fire

effects of nuclear attack. From these studies, the following basic conclusions were reached in the early 1970's:

- If an attack should occur, the primary enemy targets probably would be U.S. missile sites, and other military installations.
- An attack very likely would be preceded by a period of international tension. This could constitute “strategic warning,” and provide time for protective actions.
- A great deal of protection against radioactive fallout already exists in the United States, and more is being identified as time goes on. Attention should now be given to protection against nuclear blast and fire.
- Blast and fire would endanger mainly people living or working near military targets and large metropolitan areas. These two types of location may therefore be called “High-risk” areas.
- It is not financially feasible to build special underground blast-and-fire shelters in these high-risk areas.
- It may be feasible, however, when an international crisis threatens to result in a nuclear attack, for residents of high-risk areas to be temporarily relocated in small-town and rural areas, where nuclear weapons probably would not be targeted, provided these people could be sustained and protected against radioactive fallout.

The National Shelter Survey

The National Shelter Survey (NSS) was expanded in fiscal year 1974 to include survey of buildings for protection against direct nuclear weapons effects and the most likely peacetime (natural disaster) hazards which each community might face. This expanded new survey for “all-effects” protection represents a significant redirection in the NSS program. Two important new concepts have been added—risk-orientation and the full use of existing facilities to provide protection from all nuclear and natural disasters. As a result, the expanded survey is providing better protection for all Americans.

During fiscal year 1974, 58 selected metropolitan areas in 36 States were surveyed to determine protection existing in buildings and other facilities such as subways, mines, caves, and tunnels against the direct effects of nuclear explosions—blast, initial radiation, fire, and against the effects of tornadoes, hurricanes, earthquakes, floods, and sea surges where the areas are susceptible to these disaster effects. The 58 surveys were conducted by

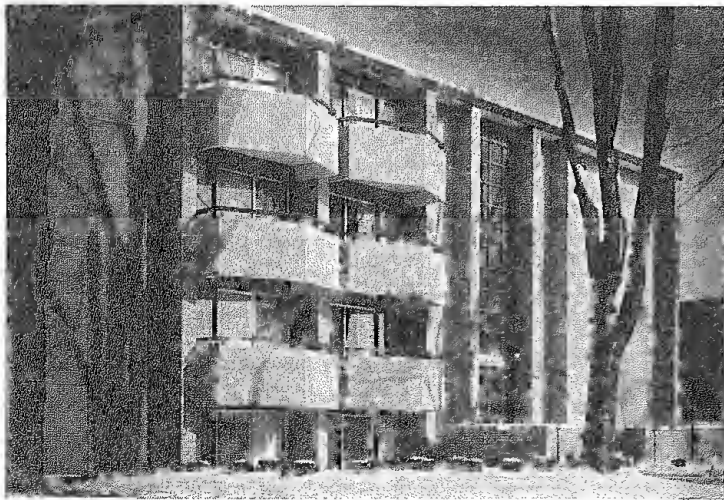
teams of specially trained engineering and architectural students who had been recruited for the summer from some 100 universities. The summer of 1973 survey effort employed 235 students who were supervised by professional personnel of the Army Corps of Engineers and the Naval Facilities Engineering Command, and who also worked closely with State and local civil defense directors in their jurisdictions.

During the fiscal year, the national fallout shelter inventory was increased by 4,105 facilities, resulting in a grand total of 228,000 facilities; and making a congregate of about 227 million fallout shelter spaces. In addition, "all-effects" spaces were located in 28,186 facilities throughout the 58 metropolitan areas in which the survey was conducted.

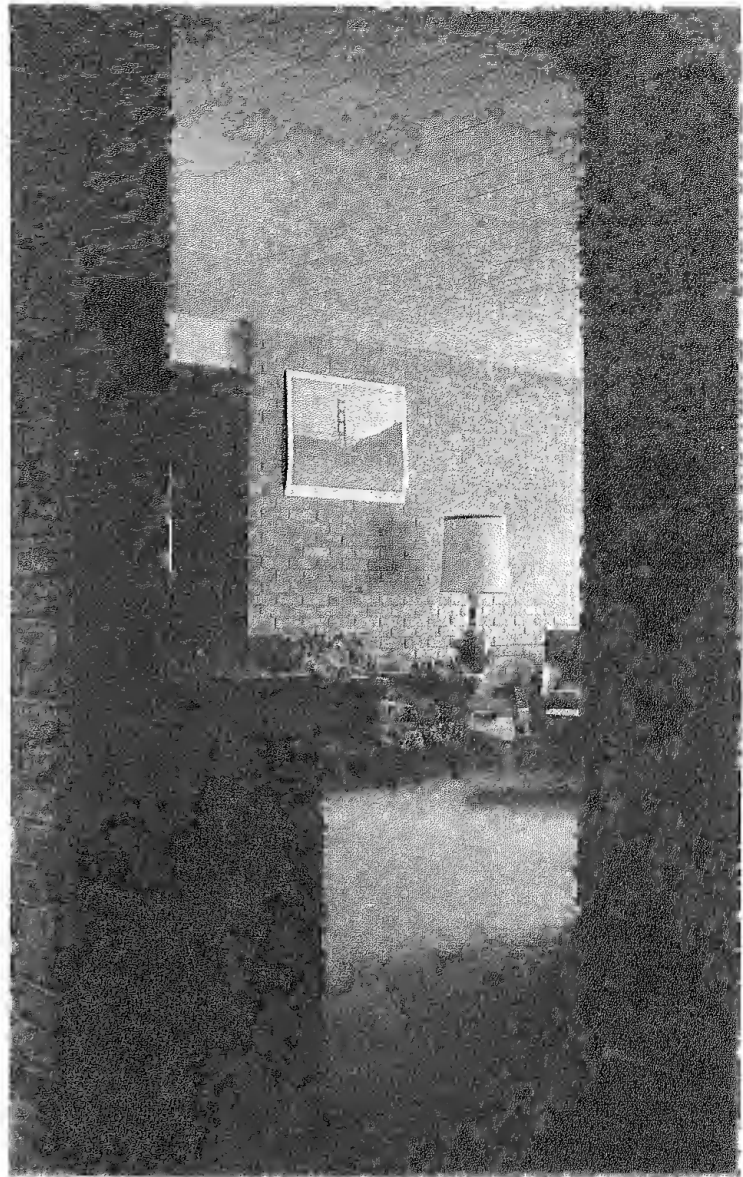
SHELTER DEVELOPMENT

DCPA administers a nationwide shelter development program. Its aim is to encourage and aid architects and consulting engineers to include shelter from both natural and manmade hazards in the design of new buildings.

DCPA, with the assistance of universities, institutes, and professional societies, has qualified many architects and engineers in the technology of shelter design and analysis. These architects and engineers, through the use of appropriate design techniques, are able to realize additional protection in new buildings at little or no extra construction cost. DCPA also offers advisory services on shelter design and related guidance to architectural and engineering firms and to building owners from Advisory Service Centers located in various States. These advisory services are provided at no cost to the building owner or his architect.



Heritage House apartments, Ann Arbor, Mich., designed by a DCPA-trained architect, offers protection against noise pollution and fallout. Outer walls are of brick masonry construction and floors are of precast concrete slabs.



Total shelter occupancy for Heritage House is approximately 460 persons. Shelter is provided by the fully buried basement and interior core spaces located in the central corridor entries, and kitchen of the individual apartment units.

Professional Development of Architects and Engineers

In recognition of the greater need for preparedness to meet the full spectrum of disasters—natural as well as nuclear—DCPA initiated a broader Architect and Engineer professional development program during fiscal year 1974. A new professional development course for architects and engineers titled "Multiprotection Design" was conducted in 28 metropolitan areas during the year. Applications from more than 2,300 architects and engineers were received for enrollment in these courses; but due to limited funds, classroom space, and instructional capabilities, 1,100 applications were accepted. These courses emphasized slanting techniques to be used during the design phase in new construction or in the remodeling of existing structures at little or no additional cost to the

building owner. Application of these techniques could result in lifesaving shelters to protect people from the effects of natural disasters such as hurricanes, earthquakes, and tornadoes, as well as from the effects of nuclear attack. Additionally, four two-week sessions of the Fallout Shelter Analysis course were conducted at the U.S. Navy Civil Engineer Corps Officers School (USN CECOS), Port Hueneme, Cal. This series of two-week sessions at USN CECOS concludes a long-standing agreement between DCPA and U.S. Navy for conducting the Fallout Shelter Analysis course.

DCPA-sponsored courses in Shelter Survey Techniques were again offered during the fiscal year for undergraduate students of architecture or engineering. The course prepared the students for summer employment in the Shelter Survey Program. More than 300 students were so employed during the summer of 1974.

Most professional development courses are administered for DCPA, under contract, by the National Society of Professional Engineers. A few are those courses conducted at the U.S. Navy Civil Engineer Corps Officers School for practicing architects and engineers, and some are conducted for credit at universities and colleges for undergraduate students in architecture and engineering.

Technical Information.—To provide architects, engineers, and others with technical information on environmental hazards and natural disasters as well as the effects of nuclear weapons, new technical reports were developed and disseminated. New buildings providing protection against such hazards as noise pollution, floods, tornadoes, and hurricanes, as well as fallout radiation, and electromagnetic pulse (EMP) were illustrated and described in various technical publications to show architects and their consulting engineers how protection against these hazards can be accomplished at little cost. These technical publications include the following: Technical reports on *Sound Control in Buildings*, *Environmental Hazards and Systems Schools*, and a design case study on the *Bureau of Reclamation Supervisory Control Center* in Casper, Wyoming. In addition, textbooks and course material were developed for use in the Multiprotection Design, and Shelter Survey Technician courses.

Services to Architects and Engineers

Direct Mail Shelter Development System (DMSDS).—This program, administered by DCPA, involved use of a systematic procedure for contacting owners and architects of selected new

buildings, to offer technical assistance for incorporating protection from natural and manmade hazards in the design of new projects. The DMSDS used direct-mail techniques, combined with personal contact by State or local government authorities and Advisory Service Centers to assist the project designers. Contacts were made early in the design phase while there was still time to incorporate protection into the building at little or no extra construction cost. During fiscal year 1974, the DMSDS was active in 49 States. Direct mail or personal contacts were made directly by State authorities in Alaska, Arizona, Hawaii, Idaho, Montana, and Rhode Island.

Federal Buildings.—Executive Order 11490 assigns emergency preparedness functions to Federal agencies, and requires that all Federal agencies engaged in building construction, plan, design, and construct the buildings to protect the public against the hazards that could result from nuclear attack upon the United States. Federal agencies, where empowered to extend Federal financial assistance, are to encourage recipients to use standards for planning, design, and construction to maximize protection of the public.

DCPA, acting for DoD, reviews proposed annual design and construction programs for Federal buildings. The purpose of this review is to insure that the budget estimates include provision for public fallout shelter, as required by Executive Order 11490. During fiscal year 1974, 25 Federal agencies submitted fiscal year 1975 design and construction projects to DCPA for review, and DCPA approved plans for provision of shelter for some 50 major projects. Most of the projects were in Atomic Energy Commission and General Services Administration programs.

Other Federal agency construction programs incorporating fallout shelters are those of the U.S. Postal Service and the military services. By fiscal yearend, public shelters in Federal buildings accounted for nearly 17 million spaces of the national inventory.

Schools.—DCPA continued to encourage State and local school officials to incorporate fallout shelter in new schools and to plan for total protection against environmental hazards, both natural and manmade, since protection provided against any one hazard often will provide protection from others.

There have been specific instances where casualties among school children have been held down

by effecting school emergency plans just before tornadoes hit. On November 28, 1973, at Southaven, Mississippi, where an emergency plan developed as part of the State Civil Defense Education Program had 1,400 school children protected in hallways as the main roof was destroyed, only six were injured. There were no fatalities.

The National Weather Service reported a record total of 1,102 tornadoes during calendar year 1973. The previous full-year record was 929, set in 1967. Yet the large death tolls that usually accompany these powerful storms were dramatically lower in 1973. At year's end, there was a total of 87 deaths from tornadoes, compared with an annual average of 114 over a period of two decades.

The improved lifesaving record didn't just happen. It was the result of widespread promotion of tornado safety rules, special attention to safety measures for school children, a slow but growing recognition of the particular vulnerability of some homes, such as mobile homes, and better detection and warning systems on the part of weather service forecasters, civil preparedness agents, and news media representatives throughout the Nation. In short, more people received prompt warning, knew what protective actions to take, and took them.

In cooperation with the U.S. Office of Education, The School Planning Laboratory, University of Tennessee, prepared a report, *Environmental Hazards and Systems Schools*, for the Defense Civil Preparedness Agency. DCPA printed this as a Technical Report, and distributed it to State Civil Defense Adult Education Coordinators and other civil preparedness officials. The report shows how a recently developed type of school construction can provide protection in time of emergency. Other publications distributed to various school officials included: *Schools in Kansas With Tornado Protection*, and *Protected Educational Facilities in Found Space*.

LICENSING AND MARKING SHELTER

Licensing.—A Fallout Shelter License and Privilege Form authorizes the marking of public fallout shelters and temporary access by the public to specific fallout shelter space in actual or impending attack. It also authorizes storage of shelter provisions in the facility and inspection by government officials. During fiscal year 1974, licenses were signed for 171 facilities, with an aggregate capacity for about one million persons. This increased the grand total to more than 130,000 licensed facilities,

with an aggregate capacity for 139.1 million persons.

Marking.—Marking shelters is now a crisis-oriented program; and by the close of fiscal year 1974, there were 118,549 facilities, with an aggregate capacity of approximately 118.9 million persons, marked with DCPA-furnished standard fallout shelter signs. Posting these signs is the responsibility of State and local governments.

Supplies.—As the Federal stocking program was discontinued in 1972, except for radiological monitoring kits, emphasis now is on the maintenance, care, and inspection of supplies at the local level. Guidance has been issued to assist in an effort to preserve supplies now in place and for disposal of deteriorating supplies as deemed necessary by local governments. The Defense Supply Agency, in its final accounting for the general supply items procured under the Federal shelter stocking program, showed that 105,873 shelter facilities had been provided with Federal supplies sufficient to take care of approximately 107.6 million persons for 8 days, or nearly 65.5 million for 14 days. By fiscal yearend, 120,401 shelters had been furnished with at least one radiation detection and monitoring kit. These shelters have a capacity of more than 123.8 million spaces.



Miss Judy Wells, commercial artist for the York County, Pa., Planning Commission, produces fallout shelter allocation maps in preparation for publishing the York County Community Shelter Plan. The maps show where to seek fallout shelter in a nuclear emergency.

COMMUNITY SHELTER PLANNING (CSP)

The primary objective of Community Shelter Planning is a practical plan in each locality aimed at providing its citizens the best shelter protection possible against nuclear attack and natural disasters. DCPA provides funds to the States to obtain the services of planners to provide technical assistance to city and county government in developing Community Shelter Plans (CSPs).

Factors considered in assigning people to specific shelter are type of threat, time constraints, and movement capability. Development of a CSP for a large metropolitan area is a complex task, appropriate for use of computer techniques. A computer

allocation procedure has been developed and used in Fitchburg-Leominster, Mass.; Colorado Springs, Colo.; Duluth, Minn.; Oklahoma City, Okla.; Salem, Ore.; and Wichita Falls, Tex. Computer assistance for development of approximately 50 CSPs in larger metropolitan areas is planned for fiscal year 1975. These plans provide procedures and public information on what to do and where to go for best protection against radioactive fallout. At the end of fiscal year 1974, a cumulative total of 2,893 communities with a population of approximately 182.8 million persons had CSPs completed or in process. When growth of the community or shifts in population make it necessary, the plans are revised.





VITAL SERVICE PROGRAMS

"Officials and the public respond to active, progressive and innovative people. Community readiness requires work, not only for awareness, but for support and involvement."

**Georgiana H. Sheldon
Deputy Director,
Defense Civil Preparedness Agency**

Building and maintaining effective civil preparedness programs require the active support of a number of vital services. They include DCPA programs such as training and education, daily information services, national and international liaison services, and research and development. These supporting activities are discussed in this part of the report.

TRAINING AND EDUCATION

During fiscal year 1974, increased emphasis was placed on the need for professionalism, and the value of training. The DCPA Training and Education Program supports civil preparedness activity nationwide at all levels of government, and provides civil preparedness education to the public. Programs are designed to upgrade the capabilities of local civil preparedness coordinators, and to provide the nucleus of a nationwide source of civil preparedness professionals.

State-Level Seminars

State Seminars are conducted under a contractual arrangement between the States and DCPA Regions. State Seminars provide local coordinators with basic information and practical instruction to enable them to perform their civil

preparedness tasks more effectively. Three types of Seminars are offered under this program: (1) Initial Seminars for recently appointed local coordinators, (2) Intermediate Seminars for coordinators having some training and on-the-job experience in civil preparedness, and (3) Advanced Seminars for coordinators who have completed the Initial and/or Intermediate Seminar or have acquired equivalent training or experience. Each Seminar is three days in length, with instruction conducted primarily by State personnel. DCPA provides Seminar materials, planning and development assistance, and 100 percent funding for participant travel and per diem and minor printing costs. During fiscal year 1974, 1,831 participants attended 97 State Seminars.

DCPA Staff College

The DCPA Staff College is located in Battle Creek, Mich. People from various parts of the United States and foreign countries who have responsibility in civil preparedness come to the Staff College to receive specialized leadership training.

A total of 1,624 participants completed 52 resident courses at the Defense Civil Preparedness Agency Staff College during fiscal year 1974. This brings the number of DCPA graduates to a cumulative total of 60,174. There were 31,101 students enrolled in home study courses during the fiscal year, for a cumulative total of 118,125 home study enrollees.

In the area of field training, Staff College conducted eight one-week Civil Preparedness Phase I Career Development courses for 228 DCPA Headquarters personnel. In addition, in support of

DCPA training and education deployment policy, Staff College personnel assisted in teaching seven field courses; supported two Regional U.S. Civil Defense Council Conferences; two State Civil Defense Association Conferences; two DCPA Regional Training and Education Conferences; two Civil Preparedness University Extension Workshops; and a Local Disaster Preparedness course conducted by the University of Southern California.



Language barriers fade when civil preparedness is the topic of discussion at DCPA Staff College.

During fiscal year 1974, DCPA Staff College special instructional events included:

1. Development of a new course, "Emergency Readiness Exercise Development," designed to give Mobilization Designees the ability to design, conduct, and evaluate civil preparedness tests and exercises.

2. An International Disaster Preparedness Seminar, conducted for participants from 23 foreign countries, in cooperation with the Agency for International Development (AID).

3. Seminars for Metropolitan Area Coordinators and Graduates of the Civil Preparedness Career Development Training Program.

During fiscal year 1974, the college activated its audio-visual studio and started production of videotapes. Tapes developed during the fiscal year for use at Staff College include: "Television Performance Techniques," "Computers," and "CD in the Soviet Union." Development of informational and instructional videotapes for DCPA Regional use include: "DCPA/TV," "Visibility for Civil Preparedness," and "Training and Education Reporting System." A new videotape titled "The Electromagnetic Pulse," is in the final stages of

production. Additionally, DCPA support was given to Defense Logistics Services Center/Defense Property Service in the production of three of nine scheduled videotapes outlining the Data Information Distribution System.

The decision, during the fiscal year, to make academic credit available to students at Staff College is DCPA's answer to many requests for and inquiries about this service over the years. Students attending the Staff College may now enroll in Michigan Technological University and receive college credit for successful completion of Staff College courses. These courses include those taught at Staff College, those designed and distributed as home study courses, and courses taught by Staff College faculty at locations other than the Staff College in Battle Creek, Mich. The academic credit received can be applied toward a degree program at Michigan Technological University.



Richard C. Rasmussen, Director, Staff College, tells about the development of television cassettes which will take Staff College instruction to the field.

Civil Preparedness University Extension Program (CPUEP)

The Civil Preparedness University Extension Program (CPUEP), as an extension of DCPA Staff College, serves as the principal means of providing training in the field to advance the professionalism of local civil preparedness directors, and to assist local governments in improving emergency operations capability.

During the year, CPUEP program emphasis was placed on special seminars for local civil preparedness directors, on-site assistance training for people in selected localities, and on natural disaster training for State and local government officials. In support of DCPA objectives, high priority was given to training activities in direct support of on-going or planned on-site assistance projects through: (1) Conferences for public officials, (2) on-site survey projects in selected localities, (3) position instruction sessions to improve the emergency performance of individual local government personnel, and (4) special tests and exercises in support of on-site assistance. Equally important were those courses or activities directed toward the training of local preparedness coordinators, such as: (1) Local Disaster Preparedness courses, (2) Civil Preparedness Planning and Operations, (3) Emergency Operations Simulation, (4) National Programs for Civil Preparedness, and (5) Civil Preparedness Career Development, Phase I.

During fiscal year 1974, CPUEP training was given to approximately 23,000 State and local officials, making a cumulative total of more than 465,000 trained since inception of the program.

Management of the CPUEP was modified during the fiscal year, by grouping it with the Civil Preparedness Education Program and the State-Level Seminar Program to establish a combined program titled, "State and Local Civil Preparedness Instructional Program." This grouping provides greater flexibility in contracting for services to accomplish goals established for individual programs. Accordingly, the responsibility for accomplishing the objectives of the CPUEP rests with the State Office of Civil Defense in 26 States and, Universities in 23 States or Territories. Two States and the District of Columbia did not have a federally funded CPUEP.

Civil Preparedness Education (CPE)

The mission of the Civil Preparedness Education (CPE) Program is to establish civil preparedness

as an integral part of the existing school program in each State. During fiscal year 1974, increased effort was directed toward providing a significant amount of protection instruction to one entire class (usually the 9th grade) as it passed through the State school system. An additional facet of the program effort was to assure that every school district and schools within a district had an effective, updated, and practiced safety plan.

A textbook and teachers manual, "Your Chance to Live" served as the nucleus of the DCPA-sponsored course of 8 hours or more instruction on individual, family, and community protection measures. The depth and effectiveness of what the student learned will be retained and serve him throughout life. In schools where the workload would not provide time for "in-depth" instruction in civil preparedness, teachers were encouraged to use other DCPA-produced material to enrich curricula and thereby enhance the chance of individual survival from hazards of all types.

A project was established during the fiscal year to develop a motion picture and a filmstrip to support and amplify information in each chapter of the textbook, "Your Chance to Live." These audio-visual aids will be available for use in schools during the 1974-75 school year.

Program activity in participating States produced the following results: A total of 822,082 pupils completed 8 hours or more instruction outlined in "Your Chance to Live." An additional 529,561 pupils completed 1 to 8 hours of instruction based on the content of "Your Chance to Live" and/or "Government in Emergency," "Games that Teach," and "Environmental Realities."

Civil preparedness workshops and conferences for teachers and school administrators provided an additional 5,829 individuals with information on civil preparedness.

Civil Preparedness Education contracts awarded in selected States provided 2,702 trained radiological monitors and 910 shelter managers to support local government emergency operations.

Medical Self-Help Training

A Medical Self-Help Training Program provides instruction in emergency medical care and treatment of sick and/or injured persons when professional medical services are not available. Medical self-help training is supported by State and local health departments, civil preparedness organizations, the American National Red Cross, the U.S.

Armed Forces, public and private schools and universities, social, civic and service organizations and thousands of volunteer instructors. A total of 544,467 students were reported trained in 16,739 courses during the fiscal year, bringing the cumulative total to 19,271,557 students reported trained since the program began in fiscal year 1962.

Two Medical Self-Help Humanitarian Awards were presented during the fiscal year; one in North Carolina and one in Tennessee. Since this award was established in fiscal year 1968, there have been 36 awards in 21 States. These awards are presented to persons who have saved lives through knowledge gained from Medical Self-Help Training courses.

The Division of Emergency Health Services (DEHS) has administered the Medical Self-Help Training Program for DCPA since the program began. Because of budgetary restrictions in fiscal year 1975, and the elimination of DEHS at the end of this fiscal year, the Department of Health, Education and Welfare has had to disassociate itself with the program, effective June 30, 1974.

Rural Civil Defense

The Rural Civil Defense Program was continued during the fiscal year by Extension Service, U.S. Department of Agriculture (USDA) under a work order agreement with DCPA. This program provided for liaison between USDA and DCPA Regions and State civil preparedness offices, and for a civil preparedness information and education program for the Nation's rural population of approximately 54 million. The information and education effort stressed protection of people, livestock, and crops from the effects of all types of disasters.

During the fiscal year, a number of leaflets and publications were produced by selected State Cooperative Extension Services under agreement with USDA Extension Service. Among those produced were: Three teaching kits—*Protecting Your Property*, *Exploring Community Disaster Plans*, and *Helping Children Face Crisis*; three leaflets—*Fallout Facts for Beef Producers*, *Fallout Facts for Swine Producers*, and *Fallout Facts for Sheep Producers*; two pamphlets—*Experimenting with Irradiated Seeds*, and *Home Heating in an Emergency*.

DCPA's broadened responsibilities for both nuclear and natural disaster preparedness have resulted in a diminished need to impact on a solely "rural" audience. Accordingly, Rural Civil Defense work order agreements between DCPA and USDA

Extension Service were terminated effective June 30, 1974.

INFORMATION SERVICES

Section 201(f) of the Federal Civil Defense Act of 1950 (Public Law 920, 81st Congress), as amended, authorizes the Director of DCPA to "publicly disseminate appropriate civil defense information by all appropriate means."

During fiscal year 1974, DCPA continued its effort to inform the public on the need for preparedness to cope with all types of disasters—nuclear, manmade, and natural. Media used encompassed the full spectrum of public information. These included printed publications, news releases, speeches, television and radio spot announcements, educational movies, and liaison activities with other governmental organizations—Federal, State, local, and friendly foreign nations—as well as with members of industry, labor, and civic organizations.

In a continuing effort to improve preparedness information to the public, DCPA coordinates its activities with other Federal departments and agencies having disaster-related responsibilities. An example of this is participation in meetings with an interdepartmental ad hoc committee formed in the latter part of fiscal year 1974, by the Community Preparedness Staff of the National Weather Service, National Oceanic and Atmospheric Administration. Among the departments and agencies represented on the committee are: National Weather Service, National Oceanic and Atmospheric Administration; Federal Disaster Assistance Administration, Department of Housing and Urban Development; Defense Civil Preparedness Agency; Plant Industry Station, U.S. Department of Agriculture; National Park Service, Department of the Interior; U.S. Army Corps of Engineers; and the U.S. Geological Survey.

Meeting quarterly, the purpose of this ad hoc group is to:

- Discuss plans for the development and deployment of natural disaster warning and preparedness materials and visual aids, such as publications, films, and other educational materials.
- Exchange solutions to problems of distribution of these materials and aids.
- Enhance rapport required to continue a free exchange of printing plates and film footage between agencies in an effort to reduce cost.
- Reduce redundancies in dissemination of preparedness materials.

A significant DCPA informational medium developed in fiscal year 1974 was its bimonthly national news magazine, FORESIGHT. This replaced eight regional monthly newsletters and one national periodical, RESPONSE, published bi-monthly during the preceding three years. The combination of these random publications into a single national news magazine resulted in significant savings both in manpower and money.

With a circulation of some 45,000, FORESIGHT brings the disaster-preparedness message to U.S. congressmen; Federal, State, and local civil preparedness personnel; governors, mayors, and key city officials; county agricultural agents; public libraries; radio and television stations; college newspapers; selected research agencies; architects and engineers qualified as shelter analysts; and various national and international organizations involved in public safety. Among the international organizations are NATO (North Atlantic Treaty Organization) and Canada's National Emergency Planning Establishment.



FORESIGHT, DCPA's bimonthly national news magazine is a significant information-exchange medium.

FORESIGHT's main objective is to inform and motivate all persons in the public and private sectors on measures to be taken to cope with any type of disaster. It covers a wide range of safety and readiness subjects; and is designed to meet long-range informational needs of everyone responsible

for public safety. Each issue is a matter of give-and-take. Contributing authors range from the Federal to the local level. The first three issues in fiscal year 1974 (January through June) featured stories from the National Weather Service, National Oceanic and Atmospheric Administration; Federal Disaster Assistance Administration; a local civil preparedness director/coordinator; and many others.

The response to FORESIGHT has been enthusiastic. Many editors of news-type periodicals have requested permission to reprint FORESIGHT articles. One example is an article on "Disaster's Mental Casualties" published in the March-April issue. This article was based on a simulated medical exercise held in Columbia, South Carolina, which was originated and coordinated by the Richland County-Columbia Civil Defense organization. The exercise covered the treatment of simulated mental and physical casualties of disaster by the Columbia Area Mental Health Clinic. Based on the FORESIGHT story by a DCPA writer who observed the exercise, a similar story appeared in the April-June issue of *Paramed News*, published by Paramed, Inc., which operates commercial ambulance services along the eastern seaboard. Another by-product of that story will be an article in the *Hospital and Community Psychiatry* magazine, published by the American Psychiatric Association, on the disaster role of the Columbia Area Mental Health Center in connection with an award to be given the Center.

In addition to FORESIGHT, DCPA produced and distributed, or contributed to, a wide variety of other public information materials. A few of the more outstanding were:

- "Civil Preparedness—You and Your Community." This envelope-size leaflet tells the DCPA role from the Federal to the local-community and private-citizen level. It is used as a handout and an envelope-stuffer to accompany utility bills, bank statements, and the like. More than 620,000 copies were printed and distributed throughout the country during fiscal year 1974. To meet back orders, an additional reprint for 500,000 was requested in June 1974.

- "In Time of Emergency . . .," which was produced in 1968, and reprinted several times. This general-purpose handbook for peacetime and wartime disasters continued in popularity. More than a million copies were distributed during fiscal year 1974, bringing total distribution to over 25 million

copies. A Spanish version of the handbook also was in popular demand, especially in Puerto Rico, sections of the Southwest, and in California.

- *Commanders Digest*. The October 25, 1973, issue of this Department of Defense publication was devoted entirely to DCPA. In addition to its initial distribution of 70 thousand copies by all military services to all installations worldwide, many base commanders reprinted excerpts from the *Digest* in their own newspapers.

- *Vertiflite Magazine*. Published by the American Helicopter Society, the September-October 1973 issue carried a story, prepared by a DCPA staff writer, on the use of helicopters for medical rescue and ambulance work in connection with the Chicago commuter-train collision October 30, 1972. The helicopter used for this operation was obtained through the DCPA Surplus Property Program under which State and local civil preparedness directors may obtain donations of certain Federal surplus personal property for civil defense purposes.

Motion Pictures

The following major motion pictures were completed and distributed during fiscal year 1974:

- "Respond"—a 23-minute, 16mm, color film designed to motivate local government officials to participate in DCPA's On-Site Assistance effort to increase emergency operating capabilities.

- "Emergency Operation Center"—a 27-minute, 16mm, color film, informs State and local government officials of the need for emergency operational readiness and an emergency operating center (EOC) for effectively coping with disasters:

- "Twister"—a 27-minute, 16mm, color documentary of the tornado which struck the city of Lubbock, Texas, and how that city responded.

- "Earthquake" (Spanish version). Produced in English during fiscal year 1973, this Spanish-language version released during the fiscal year is a documentary on the 1971 earthquake in Los Angeles and the San Fernando Valley.

The following additional major motion pictures were completed during the year and will be distributed during the first quarter of fiscal year 1975:

- "Storm"—a 28½-minute, 16mm, documentary film on Tropical Storm Agnes and its effect on many of the eastern States. The film depicts the evacuation without loss of life of 80,000 people in the Wilkes-Barre, Pa., area.

- "The Everglades and After"—a 28½-minute, 16mm color film on the rescue of 77 survivors of a jumbo-jet crash in the Florida Everglades.

- "Your Chance To Live"—a series of nine, 14-minute, color motion pictures which dramatically explore the horrors of natural and manmade disasters. Subjects covered are: "Earthwatch" (overview film), "Forest Fire," "Tornado," "Hurricane," "Flood," "Winter Storm," "Earthquake," "Pollution," and "Nuclear Disaster." The films were produced to complement the DCPA school textbook, "Your Chance To Live," which is being used in secondary schools throughout the United States.

The U.S. Army Film and Distribution and Utilization Branch reported that for a 6 month period in fiscal year 1974, DCPA public information films were requested for 16,264 showings. This does not include showings by school systems, non-government film libraries, and regional and State civil preparedness offices.

A new DCPA Motion Picture Catalog was released in December 1973.

Television

- DCPA sponsored a series of six seminars on hurricane and flood disasters over the New York City Metropolitan Regional Council Television network, which interconnects nine major county and city centers in New York, New Jersey, and Connecticut.

- DCPA also sponsored for the State of Illinois a series of television spot announcements on floods, tornado warnings, flash floods, and spectator congestion at disaster sites. These public-service spots were awarded the Silver Medal at the International Film and Television Festival in New York City.

Exhibits

A DCPA exhibit, titled "In Time of Emergency," pictorially highlighting major disasters peculiar to California, was constructed and placed for an indefinite period of time in the California Museum of Science and Industry, which is visited each month by some 150,000 adults and children. Also for this exhibit, DCPA prepared a special videotape on earthquake characteristics and safety measures to be taken in time of emergency.

Liaison Services—National and International

During fiscal year 1974, DCPA worked closely with leaders of industry, organized community groups, and civil preparedness counterparts in friendly foreign nations. The dual-capability approach, and the need for a free exchange of infor-

mation, continued to be emphasized in all liaison activities.

Industrial Liaison.—While continuing to offer advice and guidance to industry and business for the development of emergency plans during a period of intense international crisis, special attention was given to protection of personnel and industrial and business facilities against the forces of natural disasters.

The resources and organizational capabilities of industry and business were emphasized as invaluable factors in overall local civil preparedness for major emergencies and for manmade or natural disasters. Guidance was offered on methods of emergency planning and operations, with concentration on (1) protection of personnel, facilities, and equipment; (2) continuity of management; (3) protection of vital records; and (4) development of mutual-assistance pacts between industries and with the coordination of the local government emergency services.

Thousands of copies of civil preparedness materials relating to business and industry were provided during the fiscal year. Several publications were revised and distributed.

New publications produced were:

- "Industry/Business Emergency Planning Seminars."
- "Disaster Planning Guide for Business and Industry."
- "Emergency Preparedness Progress in the Electric Utility Industry," a technical report, prepared by the Defense Electric Power Administration, U.S. Department of the Interior, in cooperation with DCPA.
- "Industrial Emergency Preparedness Guide."
- "What's Your Game Plan for Disasters."

Through the DCPA information and education program, 103 industrial firms were represented among the 140 graduates of the three Industry/Business Emergency Planning courses conducted at the DCPA Staff College. This course was revised in fiscal year 1973 to stress the hazards of natural disasters and to provide protection and recovery techniques. Also added was an exercise simulating an emergency situation, to allow students a chance to apply what they had learned in the course.

During fiscal year 1974, DCPA liaison representatives participated in, attended or provided advice and guidance to many business and industrial conventions, seminars, and conferences. Included were: International Security Conference, American

Society of Association Executives, United States Civil Defense Council, National Defense Transportation Association, American Society for Industrial Security, National Association of Power Engineers, National Safety Council, National Association of Manufacturers, National Petroleum Council, Administrative Management Society, American Records Management Association, Aerospace Industries Association, American Association of Industrial Nurses, Industrial Medical Association, and Defense Electric Power Administration.

Industrial civil preparedness programs also reached industrial and business executives through courses of instruction and seminars conducted by other Federal agencies. DCPA provided assistance, guidance, and reference materials for the following:

- National Security Seminars conducted by the Industrial College of the Armed Forces, with more than 3,850 military officers and key industrial defense leaders in attendance.
- Training courses and seminars on Industrial Defense and Emergency Planning conducted by the Military Police School at Fort Gordon, Ga., with 300 industrial and government officials in attendance.
- Business, industry, and government conferences attended by more than 2,000 industrial leaders throughout the country. Coordination of industrial preparedness planning and emergency action with that of local government was stressed at the seminars, training courses, and conferences.

National Organizations Liaison.—National organizations liaison during the fiscal year resulted in an increase in youth participation in emergency preparedness.

• Almost 24,000 Boy Scouts earned merit badges in emergency preparedness, bringing the total to 40,456 since the program was introduced in 1972.

• Nearly 50,000 youths enrolled in the TV series, "Living in a Nuclear Age," handled by 4-H Extension Service, U.S. Department of Agriculture. The series was programed by 27 TV stations. These were located in 14 different market areas with over 5.5 million TV households, or a potential audience of nearly 17 million. Increased activity was noted in other youth groups, such as the Future Farmers of America, Girl Scouts of the U.S.A., the Boys' Clubs of America, and Girls' Clubs of America.



Topeka, Kansas, Explorer Scouts train in skills that will be of value in meeting the aftermath of disasters.

Based on DCPA-Boy Scout programs in this country, DCPA assisted the national headquarters of the Boy Scouts of Venezuela in helping set up an emergency preparedness program in that country.

Veterans groups, especially the AMVETS, American Legion and its auxiliary, Reserve Officers' Association, and Air Force Association intensified their preparedness program during the year.

There was a notable increase in requests from national organizations for DCPA motion pictures, and for other materials, including tabletop displays and guidance literature for area and regional meetings.

Among associations provided advice, guidance, and information through conventions, meetings, or media contact were: National League of Women Voters, Boys' Clubs of America, General Federation of Women's Clubs, National Association of Counties, American Legion Auxiliary, American Legion, Communications Workers of America, Air Force Association, AMVETS, Boy Scouts of U.S.A., Association of the U.S. Army, Girls' Clubs of America, American Veterans Committee, Girl Scouts of the U.S.A., Catholic War Veterans, Future Farmers of America, Jewish War Veterans,

Armed Forces Communications and Electronics Association, Reserve Officers Association, and Veterans of Foreign Wars.

Foreign Liaison.—Mutual civil preparedness planning and the exchange of information with friendly nations continued as the principal international activities of DCPA during fiscal year 1974. In coordination with the Office of the Secretary of Defense, the Defense Intelligence Agency, and the Department of State, DCPA maintained cooperative relations with civil preparedness organizations of other friendly governments, the North Atlantic Treaty Organization (NATO), and the US/Canada Civil Emergency Planning Committee (CEPC).

DCPA Director John E. Davis, and his Military Assistant represented the United States at the September 1973 meeting of the NATO Civil Defense Committee in Brussels. In June 1974, the Director addressed a meeting of the British Association of Civil Defense Officers in Bournemouth, England. A DCPA representative attended an October 1973 meeting of the Technical Committee 45 (TC45) of the International Electrotechnical Commission (IEC) in The Hague, The Netherlands. This Commission is concerned with international standardization of nuclear instruments. In May 1974, the Deputy Assistant Director for Engineering participated as a member of the U.S. Delegation to the Federal Republic of Germany under the Mutual Weapons Development Exchange Agreement (MWDEA). The visit covered various aspects of construction for wartime and peacetime disasters. The DCPA participant also visited the Netherlands for two days of discussions and inspection of the protective facilities in that country.

The DCPA General Counsel was a member of the U.S. Delegation to the Diplomatic Conference on the Reaffirmation and Development of International Humanitarian Law Applicable in Armed Conflicts, held in Geneva, Switzerland, from February 20 to March 29, 1974. The conference was held to consider two draft proposals, certain sections of which would have accorded special respect and protection to civil defense bodies, including their personnel, buildings, material, and means of transport.

A total of 25 senior foreign officials from 23 countries attended the 1974 International Disaster Preparedness Seminar, sponsored by the Agency for International Development, Department of State.

They spent two weeks at the DCPA Staff College, where they received briefings and took part in simulated exercises. A group of 45 firemen from Germany also visited the College. In addition, 55 other visitors from 16 countries visited DCPA during the fiscal year. These included representatives from Australia, Brazil, Canada, Finland, Germany, Iran, Japan, Korea, The Netherlands, New Zealand, Nicaragua, Saudi Arabia, Sweden, Trinidad and Tobago, and the United Kingdom.

The North Atlantic Treaty Organization (NATO) and Central Treaty Organization (CENTO) member countries were supplied with DCPA information bulletins, circulars, and technical publications on a continuing basis, as well as the Annual Report for fiscal year 1973. In response to 162 requests, information and publications were sent to 32 countries. Three new DCPA motion pictures were furnished the NATO civil defense library for loan to member countries.

The US/Canada Civil Emergency Planning Committee (CEPC) is responsible for supervising US/Canada cooperative Civil Emergency Planning arrangements. The Regional Civil Emergency Advisory Committee (RCEAC) is responsible for advising the US/Canada Civil Emergency Planning Committee of joint or coordinated regional actions or planning activities required for achieving and maintaining a maximum degree of cross-border emergency operational readiness.

Because of organizational changes at the Federal level of agencies responsible for emergency planning in both the United States and Canada, meetings of the two committees for fiscal year 1974 were suspended. Day-to-day liaison activities continued between DCPA officials and their Canadian counterparts.

Research and Development

The DCPA research program has as its continuing goal the development of information and data of many kinds needed by policy and decision-makers for planning and executing the civil preparedness program; and for improving the effectiveness of operational systems and procedures—and occasionally, hardware. Inherent in the total program are considerations of systems which, as technology changes and international situations fluctuate, offer the best opportunities for decreasing loss of life and property and increasing the capability to recover from disasters such as caused by enemy attack.

The program is executed through contractual arrangements with governmental, educational, and private organizations. The four research categories are Hazard Evaluation and Vulnerability Reduction, Emergency Operations Systems, Damage Estimation and Operations Analysis, and Systems Evaluation.

Hazard Evaluation and Vulnerability Reduction Research.—Significant accomplishment was made during fiscal year 1974 in the development of a practical means of estimating protection from initial nuclear radiation as part of the “all-effects” survey. A simplified method is now available for predicting the free-field initial radiation dose from neutrons, secondary gamma rays from neutron interactions in air and ground, and fission product gamma rays that could be received in the direct effects area of a nuclear detonation during the first minute. This dose could add materially to the radiation burden of survivors in target locations if smaller, MIRV-type weapons are used against the United States.

Other significant fiscal year 1974 accomplishments in the area of Hazard Evaluation and Vulnerability Reduction Research include:

- A computer study of fallout dose rates in a typical urban location indicated that large buildings shield monitoring instruments and reduce significantly the measured dose rates in the street.
- Shelter habitability and survival studies indicate that a single source of shelter air is often better than multiple sources, and that constrictions in the path of airflow can improve air distribution throughout a shelter. Precautions are needed to guard against hazardous concentrations of carbon monoxide from burning debris which can be drawn into shelters with ventilation air.
- Studies of blast-fire interactions in urban areas showed that fires in enclosures involving flaming combustion are extinguished or reduced to smoldering at overpressures of 2 to 9 psi. It is estimated that such conditions would result in an 80-percent reduction in the number of fires.
- A method was devised and tested having the potential of providing rapid estimates of availability of fallout shelter in Crisis Relocation Planning (CRP) host areas. It is capable of locating space in low-risk host areas, which are predominately rural, without the time and cost of resurvey.
- Information on more than 50 types of expedient shelters was developed and cataloged. These shelters were constructed by individual families or groups of people, and were tested for

their suitability for use in shelter-deficient areas.

- Analysis of several transattack and postattack hazard situations indicated that, for nuclear explosion effects on a warned population in modern urban areas, the blast effect would be more casualty-producing than the thermal effect. Early detection and suppression of ignitions was an important condition in the assumed controllability of fires. Debris was identified as a significant constraint that would limit most emergency and post-attack recovery operations in damaged urban areas. Thus, debris clearance would be one of the most important initial countermeasures.

- A study of postattack emergency operations revealed that the underlying concept of the recovery process is to recover first the necessities of life and the basis for preattack domestic life styles as much as possible before attempting a massive effort to restore national industrial-commercial establishments.

- A feasible procedure has been developed by which local authorities can rapidly estimate and locate available resources for disaster application.

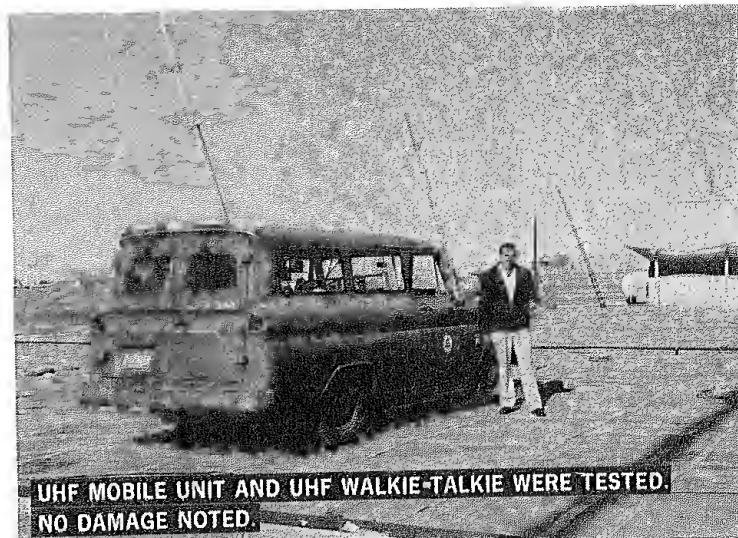
- A mathematical analysis for determining incipient collapse of floor elements has been developed and used to evaluate 25 National Shelter Survey (NSS) structures to determine their protective value as best available shelters. The procedures are interim, and will be modified, as necessary, from analysis of experimental results.

- Effort in costing modifications to upgrade existing structures to protect against 15 psi nuclear air blast has provided estimates for four categories—structural, blast doors, ventilation, and other. Modified structures hardened against nuclear weapons effects also provide excellent protection against most natural disaster effects.

Emergency Operations Systems Research.—The following were major accomplishments in the area of Emergency Operations Research during fiscal year 1974:

- An analysis of a typical supervisory control system for power lines and various measures to reduce its vulnerability to electromagnetic pulse (EMP) was completed. The results will provide additional information for a revision of DCPA Technical Report 61D, "EMP and Electrical Power Systems."

- A study of EMP effects on two-way radios furnished excellent data on reducing the EMP vulnerability of public safety radio communications equipment, and provided much useful information



Research tests were made of mobile radio equipment by subjecting the equipment to electromagnetic pulse (EMP) simulation at the Air Force Weapons Laboratory, Albuquerque, New Mexico. Picture shows a vehicle belonging to Albuquerque Civil Defense being checked after exposure to threat level EMP.

for State and local communications programs.

- The development of low-cost expedient AM and FM broadcast antennas was undertaken in an effort to identify appropriate equipment for quick return to the air following the loss of regular antennas in a disaster situation. Information garnered through this research has been considered for inclusion in the DCPA Broadcast Station Protection Program.

- An evaluation of Civil Preparedness communications systems effectiveness was completed. This in-depth effort outlined, for DCPA and U.S. Army Communications Command consideration, many ways of reducing the existing vulnerability and increasing the flexibility of the system. It further determined that existing DCPA communications, with proposed changes, were sufficient to meet communications emergency traffic requirements through 1980. A similar study is nearing completion on the current capabilities of the National Attack Warning System.

- Findings in the evaluation of nuclear fire threat to urban areas cited a major achievement toward the culmination of 10 years of civil fire research. DCPA now can advise local planners on life safety in earth-loaded dwellings; DCPA cross-checked several test methodologies and eliminated some that were once thought to be reliable. A practical application of DCPA fire research data by California civil authorities was credited with preventing what could have been the worst fire of this century in the United States.

- Development and evaluation of practical self-help fire retardants has progressed to where incor-

poration of these findings—methods for both short- and long-term fireproofing—in training literature is rapidly becoming feasible.

- Research on Nuclear Emergency Operations Planning to relocate large portions of the population of a large city in Texas was concluded. The report itself was issued in the form of a prototype to cover any city in the country. Planning guidance on emergency operations at the relocating and hosting community level was also issued. In addition, planning guidance to direct relocation at State level was prepared.

- Research on emergency operations for in-place defense was extended above the Municipal level to the Area level, and below the Municipal to the Shelter Complex and Multiple Staging Area levels. Computerized scenarios covering nuclear emergencies were successfully prepared and are being refined. These are designed especially for simulation exercises, and for use by on-site assistance teams using the various checklists of emergency actions prepared in previous years.

- An analysis of DCPA Headquarters' mission was conducted to ascertain if this mission is completely fulfilled and if it could be improved.

- Studies continued on the remarkable lipid, ethyl linoleate, as a treatment for thermal burns. This product is proving to be a healing agent and screening tests on human burn victims have begun.

- The wrapup work on Protracted Radiation Effects on mammals exposed to nuclear weapons radiation is well underway. The goal is a model for estimation of hazards to humans from low doserates. Recent progress has been made in the analysis of accumulated hematological data, and in the comparison of radiation lethality as related to doserate in a variety of animal species.

- The medical aspects of Crisis Relocation Planning (CRP) have received much attention, and efforts have begun to analyze health and medical problems, to develop guidance as input to CRP, and to formulate a prototype plan for handling the health and medical problems. Close coordination with Emergency Medical Services Systems is being emphasized.

- For the first time, an effective and credible evaluation of local coordinator's perceptions of programs and needs was formulated, with resultant impact on contents of training and program emphasis. Detailed statistical backup is provided. Use and marshalling of local resources, program implementation, and approaches to solutions of prob-

lems, were identified as major areas for attention.

- Potential of home basements for expanding the shelter base has long been appreciated, but no field exploration of local attitudes had been made. A broad study in Colorado Springs showed positive social and psychological reaction by the population, and the study will be expanded in relation to crisis relocation in the next fiscal year.

Damage Estimation and Operations Analysis.—During fiscal year 1974, a study of the feasibility of developing and installing a DCPA Regional damage prediction/assessment system at the DCPA Computer Center, Region Two, located at Olney, Md. was commenced. This developmental effort was intended to accomplish the following:

- Enhance the survivability of the DCPA computer damage assessment capability by providing redundant capability in dispersed Regional sites;

- Provide the analytical basis for crisis decisions made at DCPA Regional Offices;

- Standardize the data base and data handling system to expedite the inclusion of direct damage assessment reports—air reconnaissance and on-site inspection; and

- Generate outputs which can be communicated in a timely manner to National Headquarters (DCPA, Military, other Federal agencies), other DCPA regional Headquarters, and State Civil Defense Headquarters.

The system will include a time-phased capability consisting of an early transattack (H-hour to H+24) indirect assessment (estimation) phase, and an initial assessment phase (D+7 to D+30). These phases were designed to be consistent with the accuracy and content of data likely to be available. During the earliest phase, only gross nuclear detonation data can be expected: consequently, the system will determine the relationship between resource data records in the DCPA data base and the North American Air Defense Command (NORAD) Nuclear Detonation Point Catalog (NUDAP). Through this procedure, installations, facilities, urban areas, and personnel possibly at risk from the reported nuclear detonations (NUDETS) may be ascertained. During the second phase, it is contemplated that more refined, quantitative weapon data will be available, thus permitting higher confidence calculations of probabilities of damage to resources. The final phase calls for the processing of damage reports received from the field through the Joint Chiefs of Staff (JCS) reporting system and the DCPA reporting

system. These accurate on-site reports of damage to specific installations, resources, and areas will permit a much higher confidence evaluation of overall capability and viability.

Existing data bases, damage reporting systems, and nuclear effects models incorporated in the National Military Command System Support Center (NMCSSC) Single Integrated Damage Assessment Capability (SIDAC), the General Services Administration Ready System, and the DCPA Detailed Assessment of Hazards (DASH) System will be investigated and will be used to maximum extent. Urban/Regional/State vulnerability studies will provide the analytical basis for the proposed system.



DCPA Region 2 staff being shown an experimental SIMCON terminal/calculator station designed to improve DCPA response to emergency situations and decrease the burden of routine administration.

Systems Evaluation.—Fiscal year progress in Systems Evaluation Research included the following achievements:

- An experimental computer network (SIMCON) designed to support decentralized DCPA management activities was developed and tested during the fiscal year, and administrative reports

and technical damage assessment studies were successfully accomplished. The network consisted of three stations (one each located in the State of Maryland, DCPA Region Two Headquarters, and at DCPA National Headquarters) that operated both as terminals to larger computers and as small independent computers.

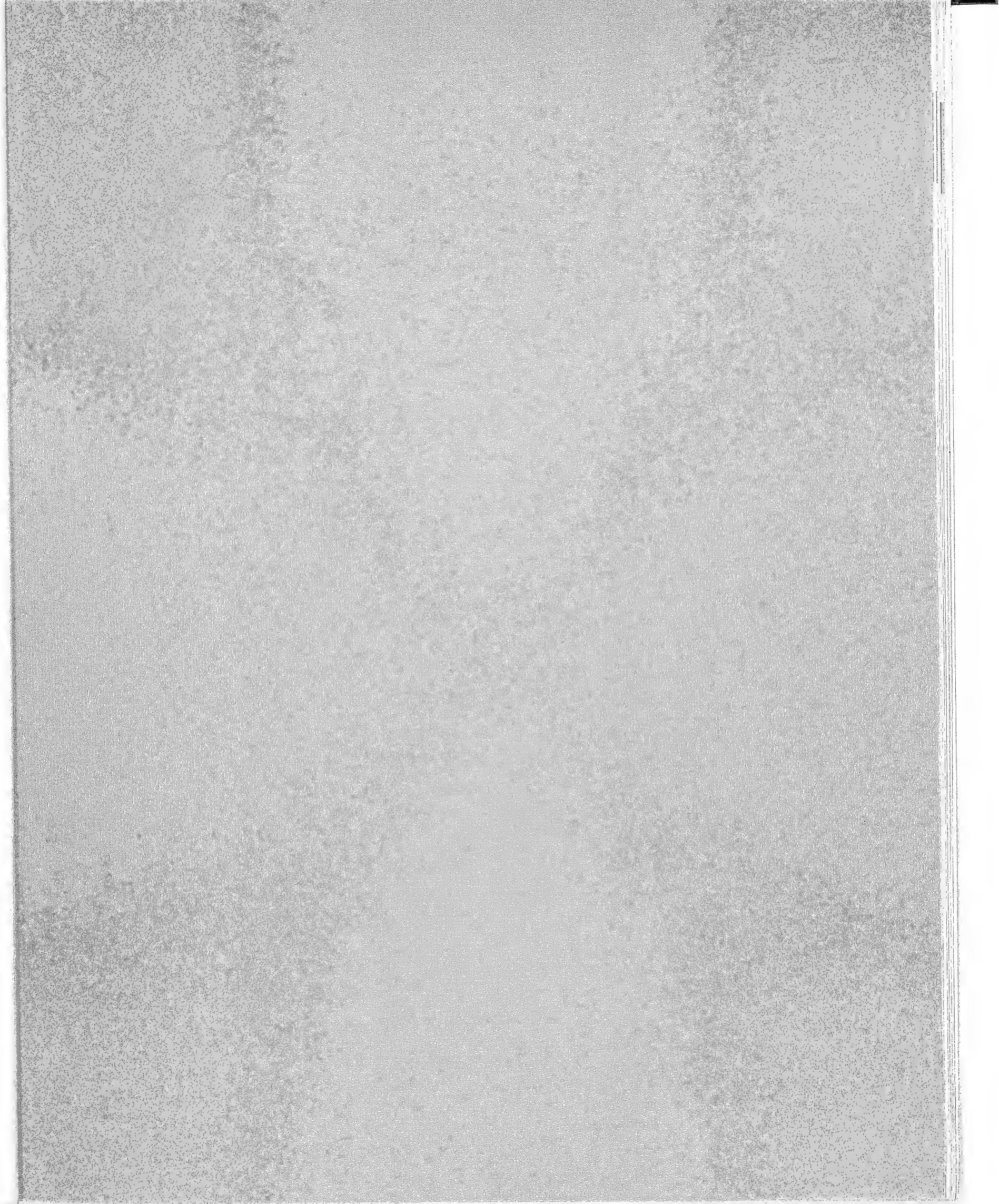
- An accelerated development of the risk area evacuation model (ADAGIO) was completed in time to support the initial studies for the Crisis Relocation Program. Direct-effects risk and fallout risk are considered in the model which allocates people from high-risk to low-risk areas in such a way that overcrowding factors and travel distances are kept as low as possible.

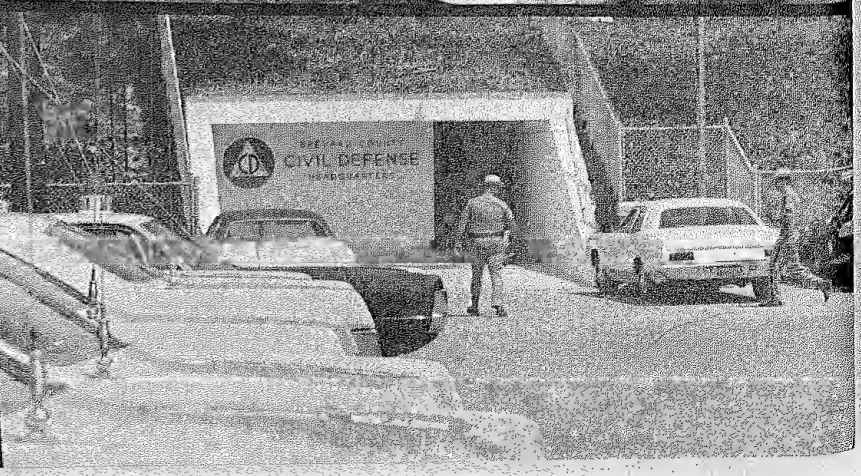
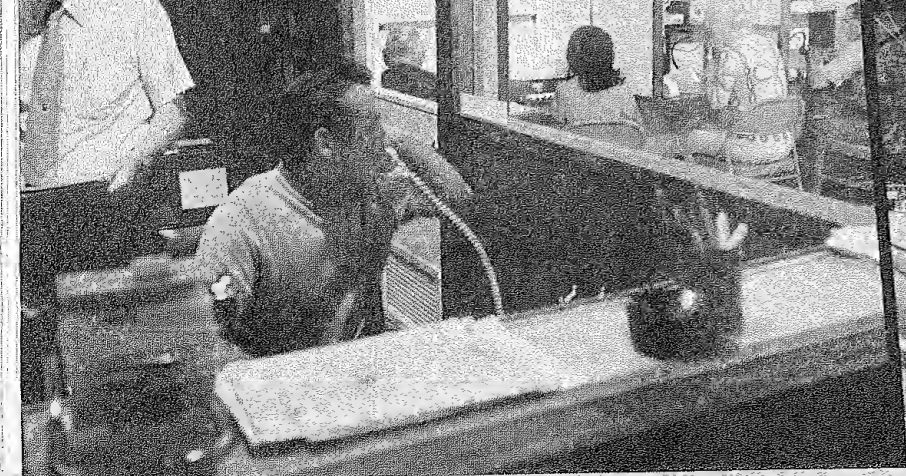
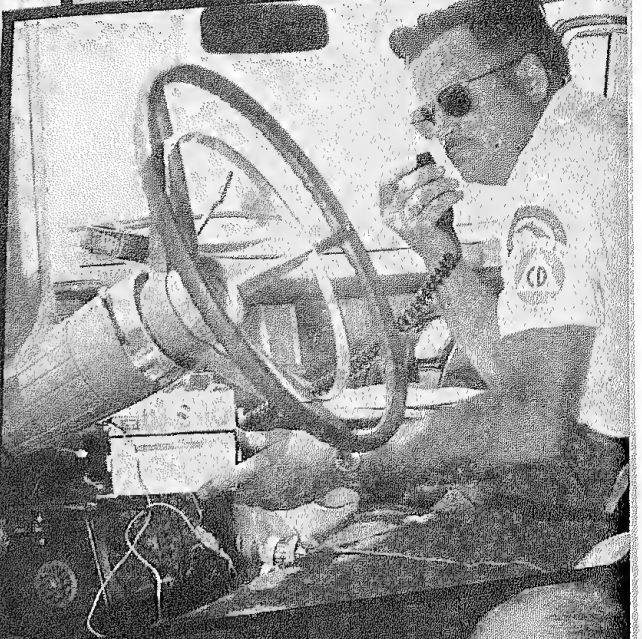
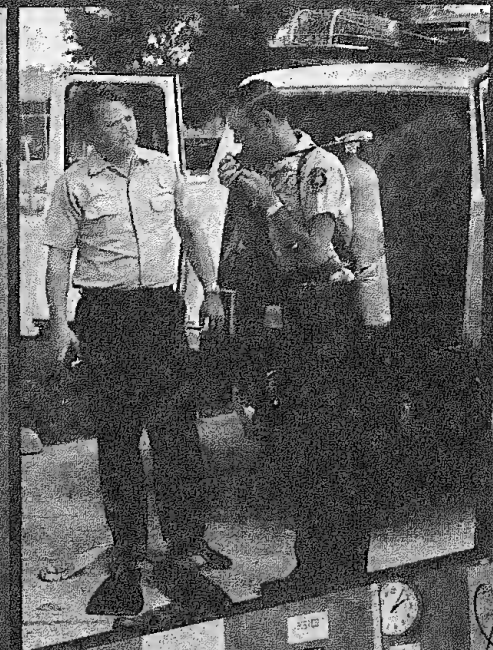
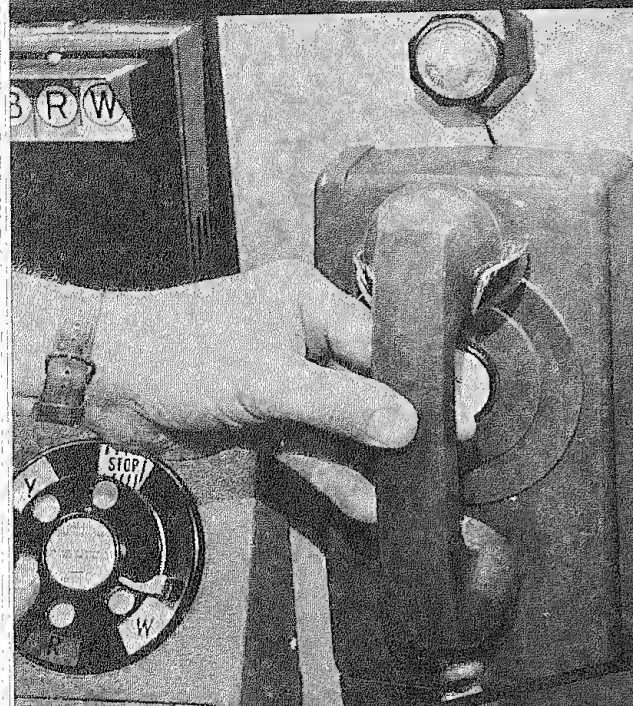
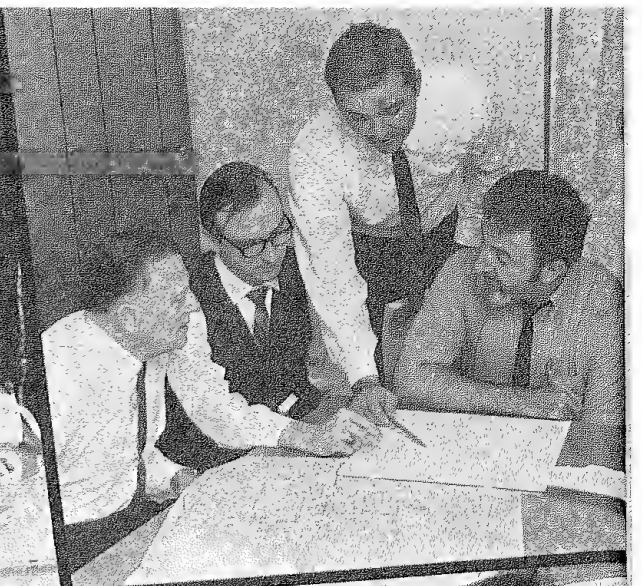
- Resource vulnerability research has produced analytical techniques for civil defense planners to evaluate local and State preattack evacuation plans. Methods were also developed to predict and evaluate the type and magnitude of problems and imbalances that such plans would impose on national and regional economic systems.

- Improvements were made in the methods for estimating the vulnerability of regional petroleum and natural gas systems to nuclear weapon effects as well as other types of disaster.

- The civil preparedness planning, exercise, and evaluation model for local systems (TELOS) has been modified for use by computer terminals, and a simplified version is now operational on the small independent computers used in the SIMCON network.

- A comparative analysis of options for meeting the problems of food shortages in hosting areas was completed for use in crisis relocation planning. Another study provided planners with alternative methods for determining hosting capacities, based on the organizational capacity of communities to support additional population and to organize and utilize relocated workers.





FEDERAL ASSISTANCE

"The legitimate object of government is to do for a community of people whatever they need to have done but cannot do at all, or cannot so well do, for themselves in their separate and individual capacities."

Abraham Lincoln

The DCPA Federal assistance program helps State and local governments obtain needed equipment and supplies for emergency purposes, as well as to help pay personnel and administrative expenses; the costs of civil preparedness training; and planning, design, and construction costs in the development of Emergency Operating Centers. Federal surplus personal property may be donated to States and their political subdivisions for civil preparedness purposes, while certain Federal property is authorized for loan under the Contributions Project Loan Program.

The four basic requirements for a unit of government to be eligible for DCPA Federal assistance are: (1) Civil preparedness organization arrangements must be established pursuant to law, (2) there must be a State-approved emergency operations plan, (3) there must be an approved program paper for the current Federal fiscal year, and (4) the State or local civil preparedness agency must comply with Title VI of the Civil Rights Act of 1964.

In addition, applicants for financial assistance for personnel and administrative expenses must (1) have an approved merit system for all of their civil preparedness employees, and (2) submit annually, a financial plan and staffing pattern.

The program paper is the key instrument for determining whether a State or political subdivision will be granted Federal matching funds or other Federal assistance. It describes what is planned to be accomplished during the next fiscal year, and the number of employees and funds needed to carry out these activities.

Supporting Systems Equipment; and Emergency Operating Centers

The primary source of supplies and equipment needed in civil emergencies would be those used in the day-to-day peacetime operations of Federal, State, and local governments. For example, existing communications systems would be used to fulfill most emergency communications requirements, and would be augmented only as necessary to assure coordinated emergency operations. Special items of equipment may be required to meet unique civil preparedness needs. Centralized control of operations is essential to assure the most effective use of services, facilities, and supplies. Emergency Operating Centers are protected facilities, with communications, emergency power, and adequate space and equipment for effective direction and control.

To receive Federal financial assistance, local civil preparedness directors or other appropriate officials must submit project applications, with justifications, to the State civil defense agency. Upon approval, an application is forwarded to the DCPA Regional Office. If approved at that level, the applicant is notified, and the purchase may be made.

Approximately \$2.7 million was obligated during fiscal year 1974 for State and local supporting systems equipment.

During the fiscal year, approximately \$6.5 million in Federal funds was obligated for the planning, design, construction, and/or equipping of State and local EOC's. For example, during fiscal year 1974, the Civil Defense Director for the city of Taylorville, Ill., received a check for \$35,177 in State and Federal funds representing half of the cost of constructing the city's Emergency Operations Center.

Systems Maintenance and Services

This program provides the funding for recurring and maintenance costs of State and local communications and warning systems to insure continued operational capability. Since 1952, DCPA has assisted States and their political subdivisions in building extensive communications and warning systems which are essential to civil preparedness operations in all kinds of disasters. Such equipment must be maintained and protected by the States and their political subdivisions to assure ready availability for civil preparedness purposes.

Communications and warning systems are of major benefit to localities having a high incidence of natural disaster. The operability of such systems is guaranteed by Federal grants which insure adequate maintenance and other standby costs. Detailed communications planning studies are also an integral part of the development of an operational capability. Grants are made to local governments for training courses and test exercises to maintain the highest degree of readiness in the event of disaster.

Approximately \$1.5 million was obligated during fiscal year 1974, for systems maintenance and services. Of this amount, approximately 95 percent was used for communications and warning recurring and maintenance charges.

Personnel and Administrative Expenses

The Federal Government shares in the costs of employing professionals and their clerical support to plan, coordinate, and operate special activities not ordinarily a part of government; for example, warning systems, shelter systems, radiological monitoring systems, and emergency direction and control. Civil preparedness personnel perform coordinating and specialist roles, involving the training and other preparation of regular elements of government for emergency functions. State and local civil preparedness employees numbering 4,087 full-time and 2,132 part-time at the end of fiscal year 1974, were responsible for emergency planning and

organization and for the training of other State and local government employees and auxiliaries who carry out emergency services, as needed.

DCPA allocates appropriated personnel and administrative funds directly to the States. The States, in turn, allocate these funds to their political subdivisions.

All States, the District of Columbia, Puerto Rico, the Virgin Islands, Guam, and 2,409 political subdivisions participated in the Personnel and Administrative Expenses program during fiscal year 1974. DCPA made \$27.1 million available for this program. The number of State and local employees performing civil preparedness functions totaled 6,219 at the end of fiscal year 1974.

Surplus Property

The Federal Property and Administrative Services Act of 1949, as amended, authorizes the donation of Federal surplus property for use in any State for civil defense purposes. When no agency or department of the Federal Government needs equipment that another Federal agency wishes to dispose of, the equipment is declared "surplus" and can be donated for use in any State for civil defense, health, and educational purposes.

DCPA has developed a list of surplus items deemed useful and necessary for civil defense purposes. This list includes generators, winches, hoists, chain, rope, and firefighting, rescue, and safety equipment, and many other items. Additional items authorized, with State approval, are earthmoving and excavating equipment, highway maintenance equipment, woodworking machinery and equipment, prefabricated structures and scaffolding, storage tanks, vessels and small craft, and metal-working machinery.

When a locality has met eligibility requirements during any given fiscal year, it may acquire needed equipment for use in developing its civil defense capability. Occasionally, when a locality needs equipment not on the list of useful and necessary items, it may apply to DCPA for special consideration. A locality obtaining surplus property must pay a small handling fee to the State.

Regulations permit collateral or subordinate use of surplus equipment, if authorized by the State or local civil defense director, and if the governmental unit to which the property is assigned has a civil defense responsibility. All property must be maintained in condition for emergency use.

Since the Surplus program was first launched in fiscal year 1957, property having an acquisition

cost of approximately \$718.4 million has been transferred to State and local governments. Federal surplus property with an original acquisition value of approximately \$92.9 million was donated to State and local governments during fiscal year 1974.

Many communities acquired needed equipment through the Surplus program during the fiscal year. The city of Waterbury, Conn., for example, saved \$154,000 by acquiring Federal surplus emergency equipment. Waterbury Civil Preparedness Director Edward Duval was able to get \$162,000 worth of equipment (trucks, rescue, and communications gear) for \$8,000.

Contributions Project Loan Program

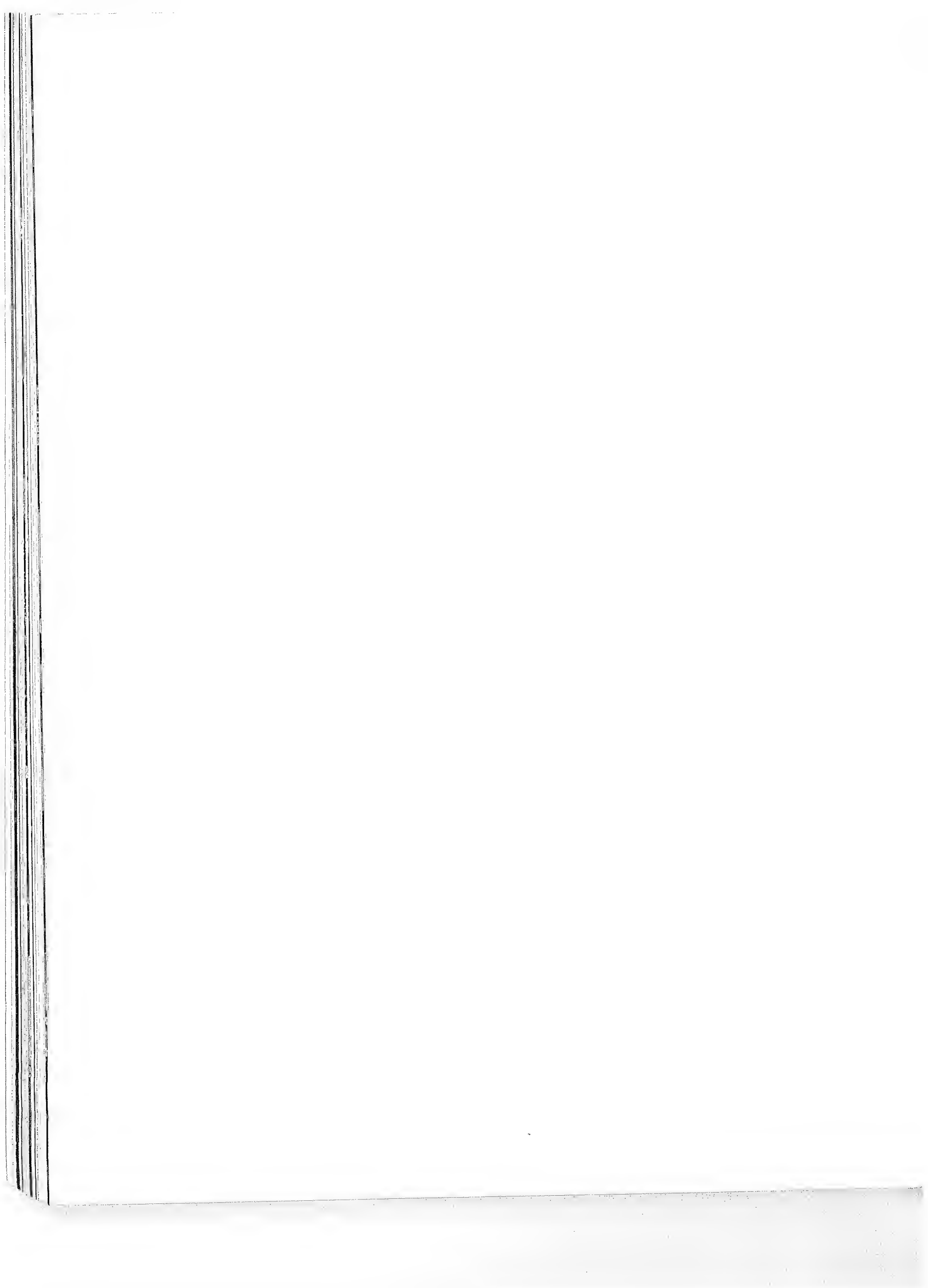
DCPA participates in the DoD reutilization program to screen and claim DoD property for its Contributions Project Loan Program. DCPA is able to claim this property at the end of the Military Priority Date, just before it would normally be transferred to the General Services Administration. In addition, property transferred as excess to the needs of government agencies may be claimed by DCPA and loaned, subject to General Services Administration restrictions.

This authorization permits DCPA to acquire a variety of high-quality items at no cost for use in the Contributions Project Loan Program. The property is loaned to States and their political sub-

divisions, subject to established regulations governing the contributions equipment program. As in other facets of the contributions program, State or political subdivisions are required to have an approved civil defense operations plan. The civil defense organization may transfer the property (by custody receipt) only to political components or organizations having civil defense responsibilities. For example, the program permits long-term loan of generators to States and localities for use in Emergency Operating Centers and Emergency Broadcast Stations. Formerly, DCPA had purchased generators for these purposes. The result is a considerable saving in dollars, and an increased civil defense capability.

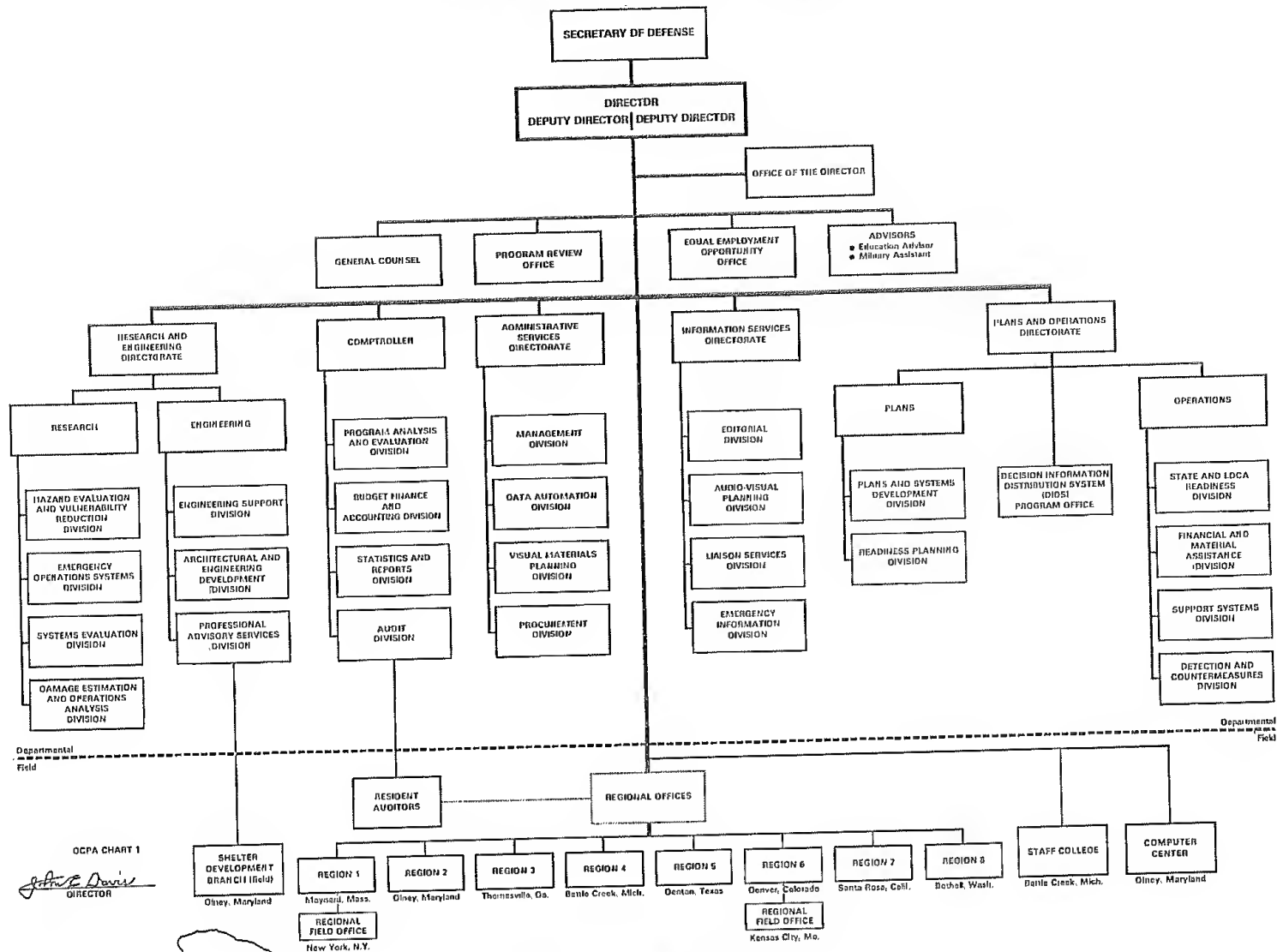
Loan procedures are initiated with submissions of a Project Application by the State or political subdivision. During the fiscal year, many project applications were received and processed for contributions project loan property. For example, the Clark County, Nevada, Civil Defense Agency procured an ambulance for the county's Medical Service Council. The ambulance, with supplies and equipment, had an original cost of more than \$11,000, but was acquired at no cost to the county through the Federal (DCPA) Contributions Project Loan Program.

Contributions Project Loan Property having an original acquisition cost of nearly \$77.3 million was loaned to State and local governments by the close of fiscal year 1974.

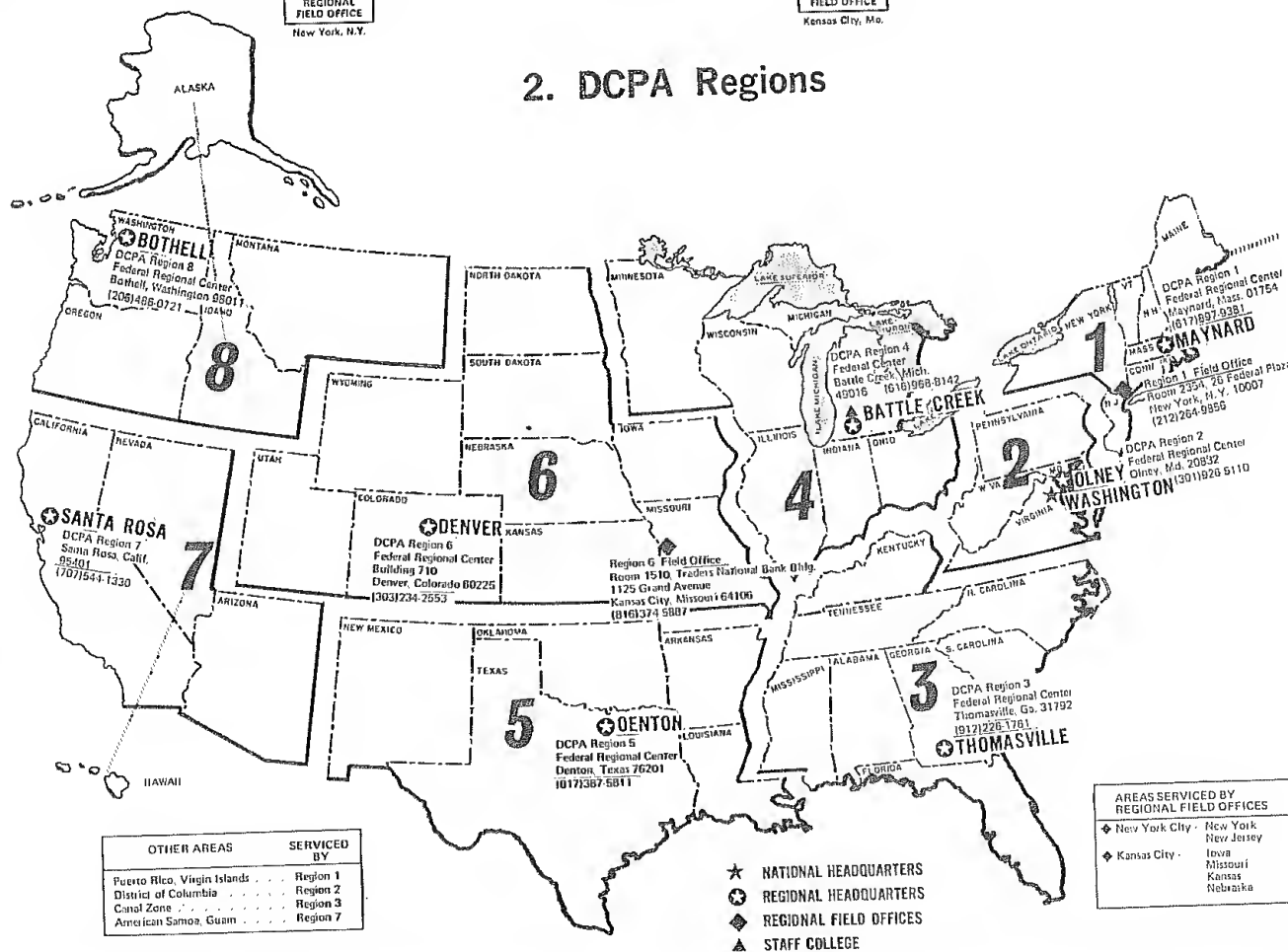


CHARTS AND MAPS

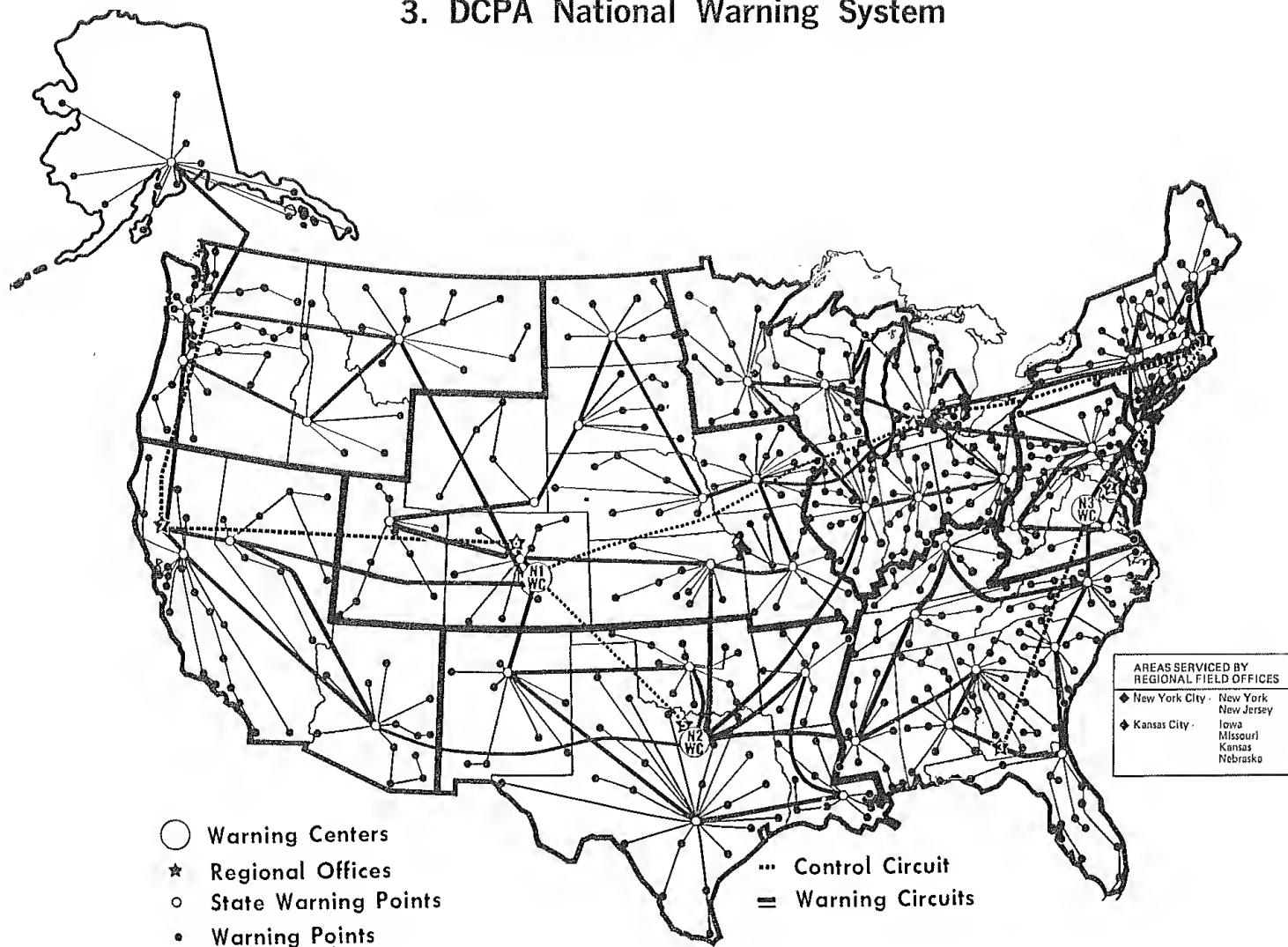
1. DCPA Organization Chart



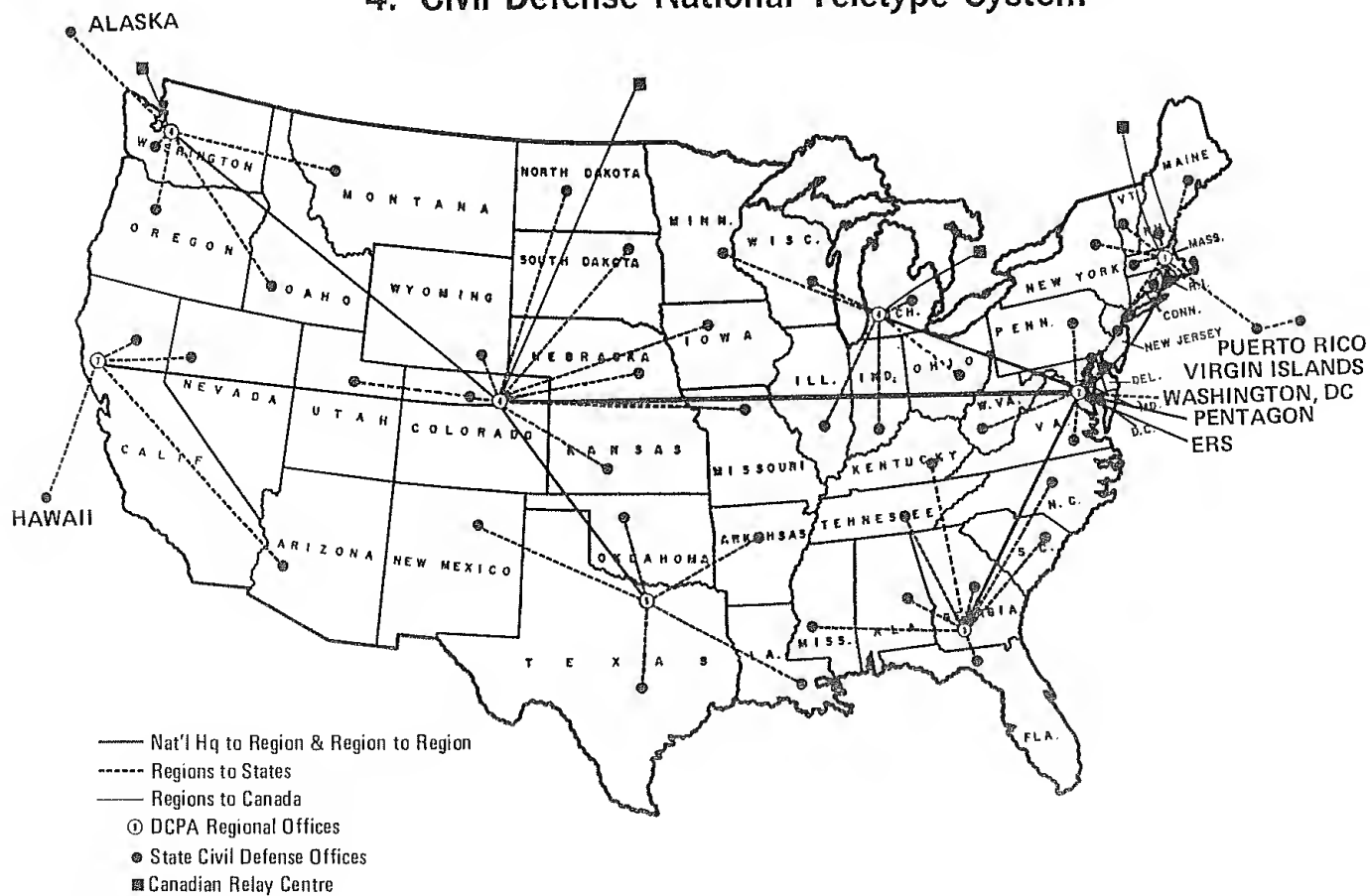
2. DCPA Regions



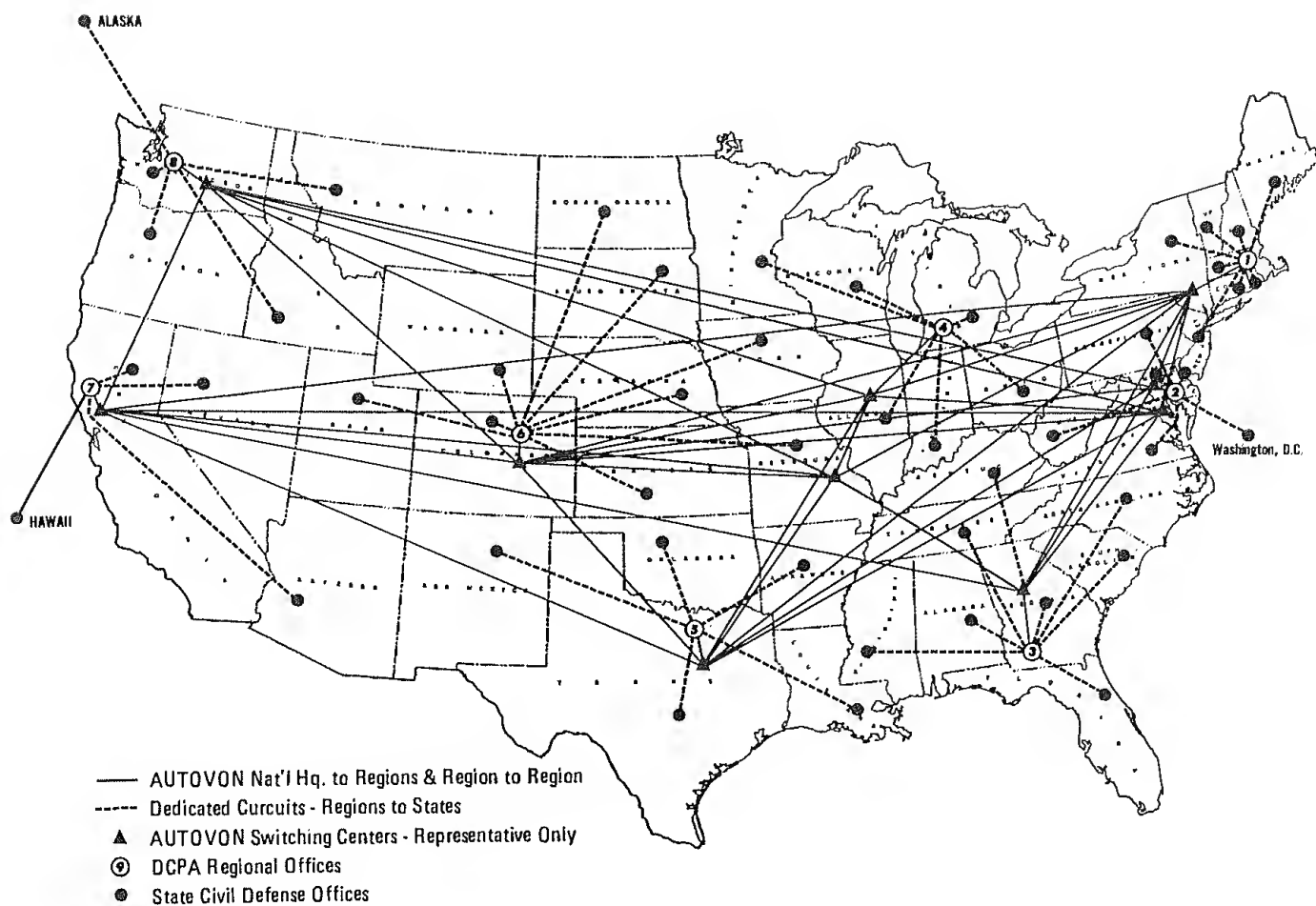
3. DCPA National Warning System



4. Civil Defense National Teletype System



5. Civil Defense National Voice System



6. Civil Defense National Radio System

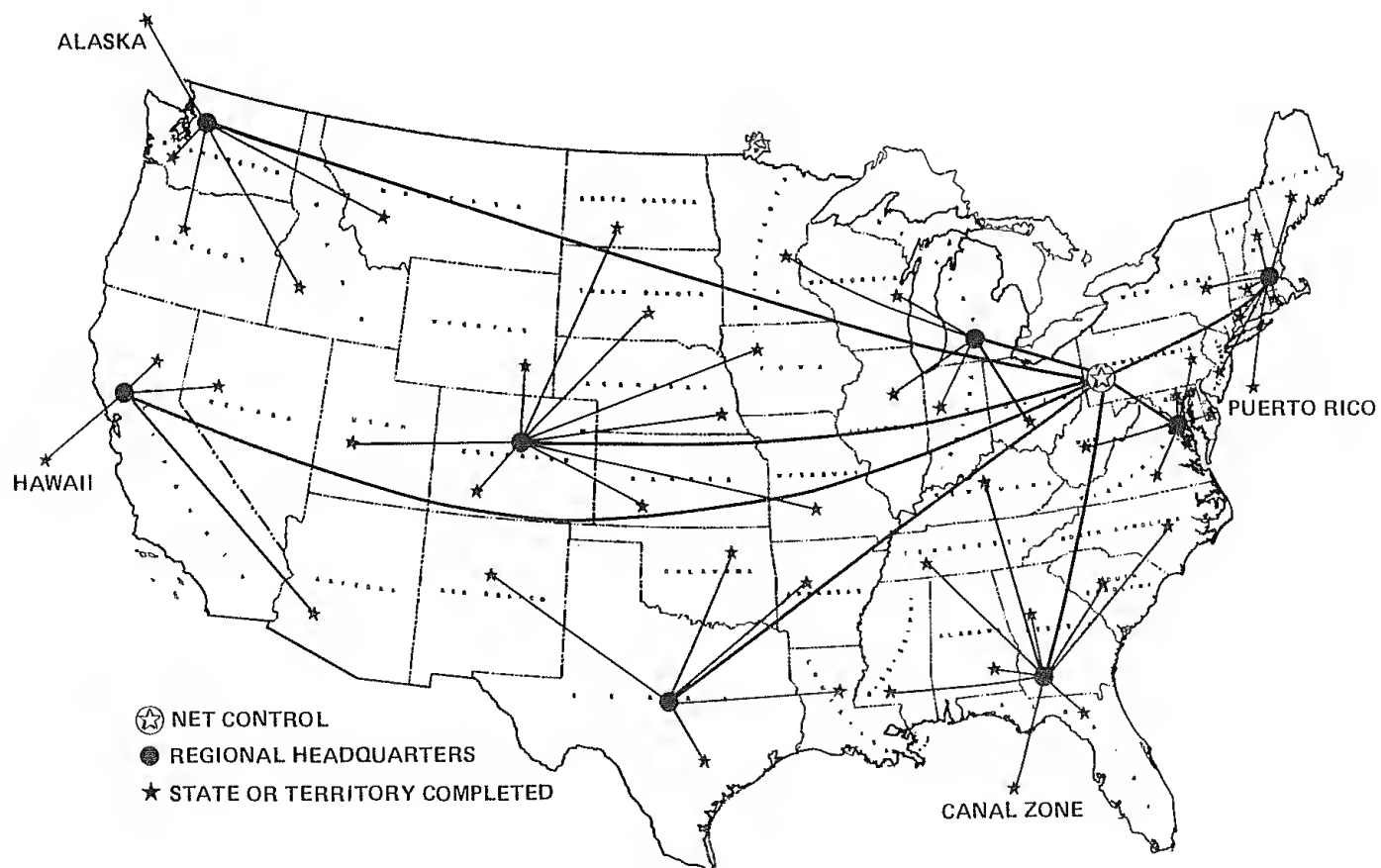


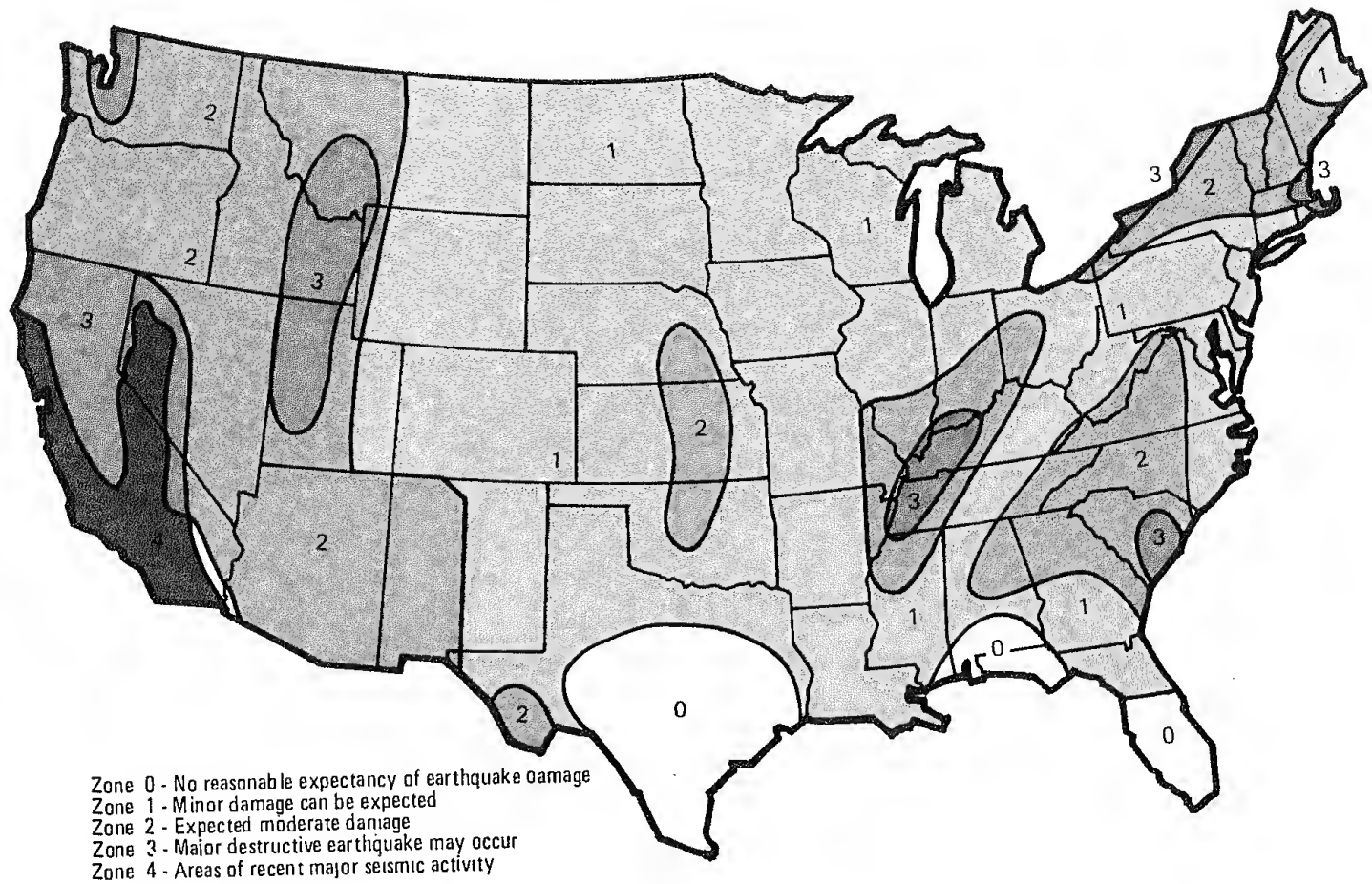
TABLE 5.—Status of community shelter plans
June 30, 1974

Area	Total		Code 0		Total Codes 1-6		Percent of Total (Codes 1-6)		Code 1	
			CSP Not Started		Total CSP In Process/or Completed				Shelter Allocation Plan Underway	
	CSP Areas	Population (000) ^b	CSP Areas	Population (000)	CSP Areas	Population (000)	CSP Areas	Population (000)	CSP Areas	Population (000)
TOTAL	3,161^a	206,207.0	268	23,456.6	2,893	182,750.4	91.5	88.6	70	11,533.2
REGION 1	174	40,034.8	16	6,477.6	158	33,557.2	90.8	83.8	5	1,021.5
Connecticut	18	3,032.2	2	645.1	16	2,387.1	88.9	78.7	5	691.4
Maine	16	993.7	0	0	16	993.7	100.0	100.0	0	0
Massachusetts	25	5,689.2	1	2,791.9	24	2,897.3	96.0	50.9	0	0
New Hampshire	10	737.7	0	0	10	737.7	100.0	100.0	0	0
New Jersey	21	7,172.2	0	0	21	7,172.2	100.0	100.0	0	0
New York	62	18,241.3	12	1,509.9	50	16,731.4	80.6	91.7	0	0
Rhode Island	5	949.7	0	0	5	949.7	100.0	100.0	0	0
Vermont	14	444.3	0	0	14	444.3	100.0	100.0	0	0
Puerto Rico	2	2,712.0	1	1,530.7	1	1,181.3	50.0	43.6	0	330.1
Virgin Islands	1	62.5	0	0	1	62.5	100.0	100.0	0	0
REGION 2	284	23,422.1	1	6.0	283	23,416.1	99.6	100.0	8	447.0
Delaware	3	548.1	0	0	3	548.1	100.0	100.0	0	0
Dist. of Columbia	1	756.5	0	0	1	756.5	100.0	100.0	0	0
Maryland	24	3,924.3	0	0	24	3,924.3	100.0	100.0	0	0
Pennsylvania	67	11,797.5	0	0	67	11,797.5	100.0	100.0	0	0
Virginia	134	4,651.5	1	6.0	133	4,645.5	99.3	99.9	7	360.2
West Virginia	55	1,744.2	0	0	55	1,744.2	100.0	100.0	1	86.8
REGION 3	737	31,903.3	192	3,804.9	545	28,098.4	73.9	88.1	27	931.4
Alabama	67	3,444.3	0	0	67	3,444.3	100.0	100.0	6	120.5
Florida	67	6,790.1	0	0	67	6,790.1	100.0	100.0	7	255.3
Georgia	159	4,590.0	81	1,275.4	78	3,314.6	49.1	72.2	5	201.4
Kentucky	120	3,219.3	0	0	120	3,219.3	100.0	100.0	0	0
Mississippi	82	2,217.0	35	526.8	47	1,690.2	57.3	76.2	1	134.6
North Carolina	100	5,082.7	30	1,152.8	70	3,929.9	70.0	77.3	3	117.0
South Carolina	46	2,590.8	0	0	46	2,590.8	100.0	100.0	3	37.8
Tennessee	95	3,924.9	46	849.9	49	3,075.0	51.6	78.3	1	20.6
Canal Zone	1	44.2	0	0	1	44.2	100.0	100.0	1	44.2
REGION 4	524	44,068.8	31	10,473.3	493	33,595.5	94.1	76.2	7	740.7
Illinois	102	11,113.9	2	5,985.7	100	5,128.2	98.0	46.1	0	0
Indiana	92	5,195.0	27	910.1	65	4,284.9	70.7	82.5	0	0
Michigan	83	8,879.9	2	3,577.5	81	5,302.4	97.6	59.7	1	625.3
Minnesota	87	3,804.8	0	0	87	3,804.8	100.0	100.0	0	0
Ohio	88	10,657.3	0	0	88	10,657.3	100.0	100.0	0	0
Wisconsin	72	4,417.9	0	0	72	4,417.9	100.0	100.0	6	123.4
REGION 5	502	20,337.4	11	1,537.2	491	18,800.2	97.8	92.4	7	326.3
Arkansas	75	1,923.3	1	33.4	74	1,889.9	98.7	98.3	0	0
Louisiana	64	3,643.2	1	25.2	63	3,618.0	98.4	99.3	0	0
New Mexico	32	1,016.0	0	0	32	1,016.0	100.0	100.0	4	112.0
Oklahoma	77	2,559.5	1	527.7	76	2,031.8	98.7	79.4	1	25.1
Texas	254	11,195.4	8	950.9	246	10,244.5	96.9	91.5	2	180.4
REGION 6	647	16,119.4	9	109.8	638	16,009.6	98.6	99.3	9	245.2
Colorado	63	2,207.3	0	0	63	2,207.3	100.0	100.0	0	0
Iowa	99	2,825.4	8	103.0	91	2,722.4	91.9	96.4	8	191.2
Kansas	105	2,249.1	0	0	105	2,249.1	100.0	100.0	0	0
Missouri	115	4,670.0	0	0	115	4,678.0	100.0	100.0	1	54.0
Nebraska	93	1,483.8	1	6.8	92	1,477.0	98.9	99.5	0	0
North Dakota	53	617.8	0	0	53	617.8	100.0	100.0	0	0
South Dakota	67	666.3	0	0	67	666.3	100.0	100.0	0	0
Utah	29	1,059.3	0	0	29	1,059.3	100.0	100.0	0	0
Wyoming	23	332.4	0	0	23	332.4	100.0	100.0	0	0
REGION 7	96	23,110.7	3	116.1	93	22,994.6	96.9	99.5	1	7,036.9
Arizona	14	1,772.5	0	0	14	1,772.5	100.0	100.0	0	0
California	58	19,963.5	0	0	58	19,963.5	100.0	100.0	1	7,036.9
Hawaii	4	769.9	0	0	4	769.9	100.0	100.0	0	0
Nevada	17	488.7	0	0	17	488.7	100.0	100.0	0	0
American Samoa	1	27.2	1	27.2	0	0	0.0	0.0	0	0
Cuam	1	85.0	1	85.0	0	0	0.0	0.0	0	0
Midway-Wake	1	^a 3.9	1	3.9	0	0	0.0	0.0	0	0
REGION 8	197	7,210.5	5	931.7	192	6,278.8	97.5	87.1	6	776.2
Alaska	21	302.4	1	52.9	20	249.5	95.2	82.5	0	0
Idaho	44	713.0	0	0	44	713.0	100.0	100.0	2	173.5
Montana	57	694.4	1	0.1	56	694.3	98.2	100.0	1	5.0
Oregon	36	2,091.5	3	878.7	33	1,212.8	91.7	58.0	2	186.7
Washington	39	3,409.2	0	0	39	3,409.2	100.0	100.0	1	411.0

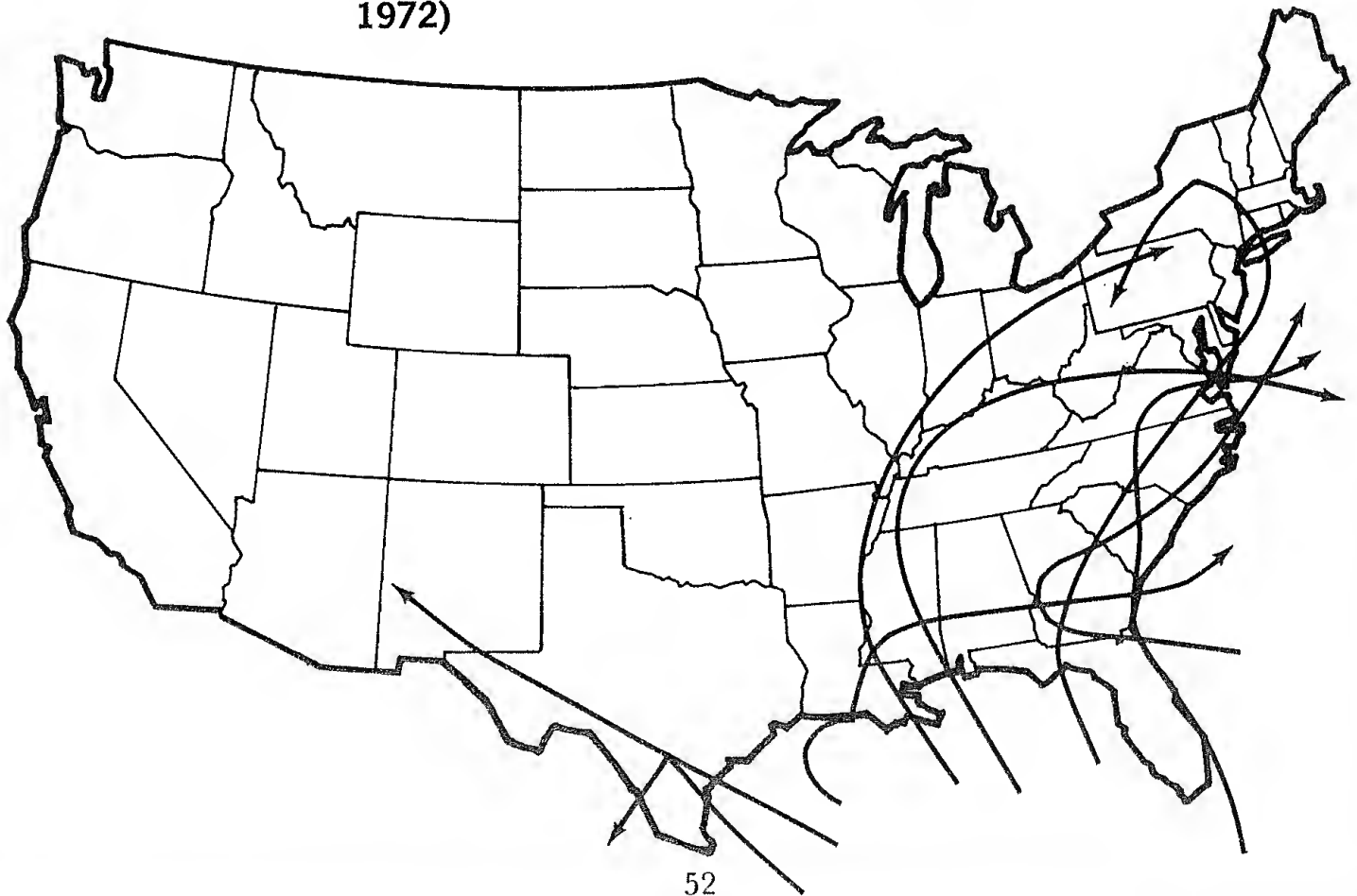
^a Essentially Counties except in Connecticut and Massachusetts.
^b 1970 Census.

^c "Emergency Information Readiness" package for distribution to the public.
^d 1960 Census.

8. Seismic-Risk Map for the Coterminous U.S.



9. Paths of selected North Atlantic Hurricanes (occurring from 1964 through 1972)



STATISTICAL TABLES

TABLE 1.—Financial summary for fiscal year 1974
(In thousands)

<i>Budget activity</i>	Funds pro- gramed for obligation	Funds obligated
GRAND TOTAL	\$85,738	\$79,744
OPERATIONS AND MAINTENANCE, TOTAL	60,026	59,237
Warning and detection	4,472	4,452
Warning systems	405	405
Detection and monitoring systems	290	287
Warehousing and maintenance	3,777	3,760
Emergency operations	10,476	10,027
Broadcast station protection program	89	82
Training and education	7,392	7,064
Emergency operations planning	511	494
National civil defense computer facility	995	995
Emergency water supply equipment	569	553
Emergency information	735	654
Other emergency operations activities	185	185
Financial assistance to States	28,802	28,665
Systems maintenance and services	1,602	1,533
Personnel and administrative expenses	27,200	27,132
Management	16,276	16,093
RESEARCH, SHELTER SURVEY AND MARKING, TOTAL	25,712	20,507
Shelters	11,998	8,567
Shelter	8,387	5,833
Community shelter planning	2,804	2,137
Decision information distribution system	556	550
Federal regional emergency operating centers	203	15
Shelter stocking	48	32
Emergency operating centers	10,292	9,248
State and local emergency operating centers	7,054	6,505
State and local supporting systems equipment	3,238	2,743
Research and development	3,422	2,692

Figures may not add to totals due to rounding.

TABLE 8.—Federal Assistance to State and local governments ^a
June 30, 1974

Area	Personnel and administrative expenses			Systems maintenance and services, amounts obligated			
	Amount obligated	Political subdivisions		Total	Recurring charges		Education, training and public information
		Number participating	Staff		Communications	Warning	
TOTAL	\$27,131,782	^b 2,409	6,219	\$1,533,133	\$529,928	\$927,371	\$75,835
REGION ONE	6,674,834	422	1,443	402,015	150,296	208,887	43,632
Connecticut	400,000	29	00	32,149	9,292	21,005	1,853
Maine	364,400	108	165	47,192	26,640	8,074	12,478
Massachusetts	944,000	65	197	26,164	12,563	9,395	4,206
New Hampshire	81,434	18	31	2,576	1,074	1,502	0
New Jersey	890,000	72	206	39,114	11,060	17,696	10,358
New York	3,232,000	42	439	246,740	85,024	147,337	14,387
Rhode Island	218,000	8	37	2,859	766	2,093	0
Vermont	92,000	5	26	2,383	247	1,705	350
Puerto Rico	410,000	75	256	0	0	0	0
Virgin Islands	43,000	0	6	3,630	3,630	0	0
REGION TWO	2,476,255	170	547	199,400	46,561	147,626	5,213
Delaware	108,600	4	23	4,456	1,931	2,310	215
Dist. of Columbia	222,901	0	29	8,000	8,000	0	0
Maryland	568,969	22	98	39,285	18,515	20,141	629
Pennsylvania	898,411	61	196	110,892	13,292	94,526	3,074
Virginia	496,184	58	148	35,875	4,823	30,529	524
West Virginia	181,190	25	53	092	0	120	772
REGION THREE	4,673,001	461	1,182	112,239	22,016	88,174	2,040
Alabama	632,007	65	143	11,821	3,301	7,964	556
Florida	920,000	58	215	30,673	6,669	24,004	0
Georgia	806,510	89	204	17,397	1,654	15,743	0
Kentucky	323,675	45	109	5,381	2,072	3,308	0
Mississippi	367,337	54	117	8,499	4,271	4,227	0
North Carolina	650,917	63	152	8,847	968	7,067	12
South Carolina	506,015	39	115	6,199	468	4,252	1,480
Tennessee	457,660	48	127	23,422	2,613	20,809	0
Canal Zone	0	0	0	0	0	0	0
REGION FOUR	3,675,249	463	916	208,241	36,016	158,085	12,540
Illinois	083,000	180	305	39,833	3,640	35,750	435
Indiana	221,000	25	67	7,510	0	7,454	56
Michigan	665,358	68	122	25,179	4,893	19,000	1,205
Minnesota	854,000	105	209	40,550	2,106	34,750	3,686
Ohio	453,091	26	89	42,293	12,659	24,590	5,045
Wisconsin	596,000	59	124	52,076	13,510	37,245	2,113
REGION FIVE	2,149,190	242	582	38,424	12,648	25,391	386
Arkansas	374,624	59	121	3,980	1,672	2,308	0
Louisiana	539,000	30	131	10,246	3,104	7,142	0
New Mexico	112,226	10	36	1,154	194	960	0
Oklahoma	363,943	40	98	9,807	4,216	5,206	386
Texas	759,397	95	196	13,157	3,462	9,695	0
REGION SIX	2,115,846	400	698	165,780	60,081	95,900	1,799
Colorado	274,000	35	70	20,475	12,651	15,230	595
Iowa	330,000	76	117	10,268	5,001	13,266	0
Kansas	261,109	50	90	40,167	17,922	21,700	545
Missouri	358,061	63	120	30,786	8,751	21,738	298
Nebraska	277,250	50	94	21,664	5,637	15,965	62
North Dakota	171,000	50	67	8,129	5,422	2,707	0
South Dakota	190,737	41	71	7,234	3,339	3,720	175
Utah	157,000	10	32	1,400	1,101	174	125
Wyoming	96,689	25	37	9,657	8,257	1,400	0
REGION SEVEN	4,097,610	114	561	378,972	181,110	187,644	10,218
Arizona	316,285	21	64	30,241	19,644	9,576	1,022
California	3,100,729	74	412	272,488	145,004	119,301	8,103
Hawaii	319,596	4	36	69,893	11,670	57,629	594
Nevada	250,000	15	44	6,350	4,712	1,130	500
American Samoa	0	0	0	0	0	0	0
Guam	31,000	0	5	0	0	0	0
Midway-Wake	0	0	0	0	0	0	0
REGION EIGHT	1,269,797	137	290	27,263	12,399	14,864	0
Alaska	233,600	4	23	2,450	633	1,825	0
Idaho	104,340	32	45	977	847	130	0
Montana	207,311	54	71	1,648	298	1,350	0
Oregon	180,546	10	37	1,382	1,382	0	0
Washington	544,000	29	114	20,798	9,239	11,559	0

^a Figures may not add to exact totals due to rounding.

TABLE 3.—State distribution of Warning Points, backup installations, and extensions in system
June 30, 1974

Area	NAWAS Warning Points			Extensions	Back-up Installations	NAWAS Warning Points			Back-up Installations	Extensions
	Total	Federal	State & Local			Total	Federal	State & Local		
TOTAL	1,221	346	875	350	412	116	35	81	25	9
REGION 1	158	30	128	133	66	16	2	14	8	1
Connecticut	23	3	20	2	5	19	3	11	1	5
Maine	22	3	19	2	20	15	8	12	5	1
Massachusetts	28	8	20	7	11	17	3	15	11	1
New Hampshire	18	2	16	2	6	49	2	29	0	1
New Jersey	14	1	13	0	2		20			
New York	36	11	25	120	16	212	63	149	87	38
Rhode Island	5	1	4	0	2	24	9	15	13	8
Vermont	12	1	11	0	4	36	11	25	11	6
REGION 2	110	43	67	11	33	24	7	17	15	4
Delaware	5	1	4	2	1	30	9	21	9	6
Dist. of Columbia	6	6	0	0	0	34	9	25	11	7
Maryland	26	11	15	7	5	15	4	11	6	4
Pennsylvania	30	10	20	7	16	19	6	13	6	4
Virginia	25	10	15	1	3	17	3	14	10	0
West Virginia	18	5	13	0	8	13	5	8	6	2
REGION 3	243	74	169	99	91	90	29	61	31	29
Alabama	31	11	20	10	12	24	10	14	5	10
Florida	52	15	37	26	20	39	10	29	14	8
Georgia	31	11	20	10	11	6	2	4	4	0
Kentucky	28	10	18	0	4	21	7	14	8	11
Mississippi	29	6	23	26	17				47	7
North Carolina	27	6	21	1	8	107	30	77	7	7
South Carolina	18	4	14	1	8	17	3	14	7	0
Tennessee	27	11	16	25	11	11	2	9	6	0
REGION 4	185	42	143	24	32	23	10	19	15	5
Illinois	32	9	23	8	3	27	8	19	12	1
Indiana	27	4	23	2	1	11	2	16	7	1
Michigan	31	1	30	4	1	23	7	9	6	5
Minnesota	22	8	14	3	1	29	10	19	15	1
Ohio	39	13	26	0	4	27	8			1
Wisconsin	34	7	27	7	22					1

TABLE 4. — Distribution of RADEF equipment
June 30, 1974

No.	Item	Procurement FY 55-74	Distribution								Disposal	June 30, 1974 Inventory
			Grants for Shelters	Grants for Operations	Loans or Grants for Training	Grants to High Schools/ Colleges	Grants for Maintenance/ Calibration	Loans and Grants to Federal Agencies	To Various Users ^a	Bulk Allocation to States		
CD V-138	Training Dosimeter	221,866	0	2,186	88,102	29,018	26,064	7,960	7,885	28,197	189,412	32,286
CD V-457	Demonstration Unit	3,576	0	0	1,801	0	242	154	1	892	3,090	480
CD V-700	Low Range Survey Meter	452,558	140,898	73,900	53,826	29,018	47,933	23,940	24,766	17,092	411,373	35,575
CD V-703	Loudspeaker for CD V-700	10,000	0	0	767	0	0	32	15	0	814	9,186
CD V-710	Medium Range Survey Meter	170,750	20,713	34,943	30,222	14,509	1,709	10,211	2,075	0	114,382	1,569
CD V-711	Remote Sensor Meter (Blast)	600	0	301	0	0	0	29	14	0	344	56
CD V-715	High Range Survey Meter	567,475	120,185	44,824	28,260	0	163,129	23,231	16	144,684	524,329	43,086
CD V-717	Remote Reading Survey Meter	100,100	0	3,790	2,850	0	2,116	1,028	602	68,801	20,913	0
CD V-720	High Range Survey Meter	113,231	0	36,667	5,837	14,509	15,432	7,996	2,267	10,543	93,251	19,970
CD V-730	Dosimeter (0-20R)	168,500	0	36,109	15,239	14,509	246	12,975	3,631	56,738	139,447	28,842
CD V-736	Dosimeter (0-2R)	500	0	0	49	0	0	53	36	0	138	360
CD V-740	Dosimeter (0-100R)	162,950	45,983	36,781	14,401	14,509	383	39,780	5,870	0	157,707	5,142
CD V-742	Dosimeter (0-200R)	3,117,201	235,813	1,908,940	4,890	0	88,628	74,203	37,940	353,992	2,704,406	409,525
CD V-746	Dosimeter (0-600R)	500	0	0	49	0	0	54	28	0	131	367
CD V-750	Dosimeter Charger	515,032	140,898	137,233	22,126	14,509	69,676	25,480	5,107	82,743	497,772	17,220
CD V-756	Dosimeter Charger	500	0	0	49	0	0	52	36	0	137	361
CD V-757	Barrier Shielding Demonstrator	81	0	0	50	0	0	9	3	0	62	19
CD V-760	Phosphate Glass Dosimeter	80,000	0	0	0	0	0	13,541	1,460	0	15,001	0
CD V-770	Phosphate Glass Charger	153	0	0	0	0	0	136	17	0	153	0
CD V-781	Aerial Survey Meter	1,250	0	772	0	0	0	2	67	0	841	409
CD V-782	Radioactive Source (Cesium)	100	0	0	60	0	0	8	20	0	88	12
CD V-784	Radioactive Source (Cobalt)	3,489	0	0	1,157	0	0	25	6	0	1,188	522
CD V-786	Radioactive Source (Cobalt)	1,000	0	0	0	0	0	6	0	0	6	6
CD V-787	Comparison Standard	60,000	0	5,108	4,873	29,018	0	1,899	21	0	40,919	0
CD V-788	Handling Tongs	7,560	0	0	1,345	0	956	44	2	0	2,347	5,180
CD V-791	Lead Container (Small)	4,490	0	0	1,157	0	14	31	6	0	1,208	1,962
CD V-792	Lead Container (Medium)	4,489	0	0	1,157	0	14	31	6	0	1,208	1,962
CD V-793	Calibration Units ^b	20	0	0	0	0	18	0	1	0	19	0
CD V-794	Calibration Unit	73	0	0	0	0	53	0	15	0	68	5
CD V-795	Calibration Unit	10	0	0	0	0	0	0	0	0	0	0
	TOTAL	5,768,054	704,490	2,321,554	278,267	159,599	416,613	242,910	91,913	763,682	4,979,028	635,016

^a OCD Facilities, Contract activities, Foreign Countries.

^b Includes CD V-785 radioactive source.

TABLE 5.—Status of community shelter plans
June 30, 1974

Area	Total		Code 0		Total Codes 1-6		Percent of Total (Codes 1-6)		Code 1	
			CSP Not Started		Total CSP In Process/or Completed				Shelter Allocation Plan Underway	
	CSP Areas	Population (808) ^b	CSP Areas	Population (000)	CSP Areas	Population (000)	CSP Areas	Population (000)	CSP Areas	Population (000)
TOTAL	3,161^a	206,287.8	268	23,456.6	2,893	182,750.4	91.5	88.6	70	11,533.2
REGION 1	174	48,034.8	16	6,477.6	158	33,557.2	90.8	83.8	5	1,021.5
Connecticut	18	3,032.2	2	645.1	16	2,387.1	88.9	78.7	5	691.4
Maine	16	993.7	8	8	16	993.7	100.0	100.0	0	0
Massachusetts	25	5,689.2	1	2,791.9	24	2,897.3	96.0	50.9	0	0
New Hampshire	10	737.7	8	0	10	737.7	100.0	100.0	0	0
New Jersey	21	7,172.2	0	0	21	7,172.2	100.0	100.0	0	0
New York	62	18,241.3	12	1,509.9	50	16,731.4	80.6	91.7	0	0
Rhode Island	5	949.7	8	0	5	949.7	100.0	100.0	0	0
Vermont	14	444.3	8	8	14	444.3	100.0	100.0	0	8
Puerto Rico	2	2,712.8	1	1,530.7	1	1,181.3	50.0	43.6	0	330.1
Virgin Islands	1	62.5	0	0	1	62.5	100.0	100.0	0	0
REGION 2	284	23,422.1	1	6.8	283	23,416.1	99.6	100.0	8	447.0
Delaware	3	548.1	8	8	3	548.1	100.0	100.0	0	0
Dist. of Columbia	1	756.5	8	0	1	756.5	100.0	100.0	0	0
Maryland	24	3,924.3	0	0	24	3,924.3	100.0	100.0	0	0
Pennsylvania	67	11,797.5	0	0	67	11,797.5	100.0	100.0	0	0
Virginia	134	4,651.5	1	6.0	133	4,645.5	99.3	99.9	7	360.2
West Virginia	55	1,744.2	8	0	55	1,744.2	100.0	100.0	1	86.8
REGION 3	737	31,903.3	192	3,804.9	545	28,098.4	73.9	88.1	27	931.4
Alabama	67	3,444.3	0	0	67	3,444.3	100.0	100.0	6	120.5
Florida	67	6,798.1	0	0	67	6,790.1	100.0	100.0	7	255.3
Georgia	159	4,590.8	81	1,275.4	78	3,314.6	49.1	72.2	5	201.4
Kentucky	128	3,219.3	0	0	120	3,219.3	100.0	100.0	0	0
Mississippi	82	2,217.0	35	526.8	47	1,690.2	57.3	76.2	1	134.6
North Carolina	100	5,882.7	30	1,152.8	70	3,929.9	70.0	77.3	3	117.0
South Carolina	46	2,598.8	0	0	46	2,590.8	100.0	100.0	3	37.8
Tennessee	95	3,924.9	46	849.9	49	3,075.0	51.6	78.3	1	20.6
Canal Zone	1	44.2	0	0	1	44.2	100.0	100.0	1	44.2
REGION 4	524	44,068.8	31	10,473.3	493	33,595.5	94.1	76.2	7	748.7
Illinois	102	11,113.9	2	5,985.7	100	5,128.2	98.0	46.1	0	0
Indiana	92	5,195.0	27	910.1	65	4,284.9	70.7	82.5	0	0
Michigan	83	8,879.9	2	3,577.5	81	5,302.4	97.6	59.7	1	625.3
Minnesota	87	3,804.8	0	0	87	3,804.8	100.0	100.0	0	0
Ohio	88	10,657.3	0	0	88	10,657.3	100.0	100.0	0	0
Wisconsin	72	4,417.9	0	0	72	4,417.9	100.0	100.0	6	123.4
REGION 5	502	20,337.4	11	1,537.2	491	18,800.2	97.8	92.4	7	326.3
Arkansas	75	1,923.3	1	33.4	74	1,889.9	98.7	98.3	0	0
Louisiana	64	3,643.2	1	25.2	63	3,618.0	98.4	99.3	0	0
New Mexico	32	1,016.0	0	0	32	1,016.0	100.0	100.0	4	112.8
Oklahoma	77	2,559.5	1	527.7	76	2,031.8	98.7	79.4	1	25.1
Texas	254	11,195.4	8	950.9	246	10,244.5	96.9	91.5	2	188.4
REGION 6	647	16,119.4	9	109.8	638	16,009.6	98.6	99.3	9	245.2
Colorado	63	2,287.3	0	0	63	2,207.3	100.0	100.0	0	0
Iowa	99	2,825.4	8	103.8	91	2,722.4	91.9	96.4	8	191.2
Kansas	105	2,249.1	0	0	105	2,249.1	100.0	100.0	0	0
Missouri	115	4,678.0	0	0	115	4,678.0	100.0	100.0	1	54.0
Nebraska	93	1,483.8	1	6.8	92	1,477.0	98.9	99.5	0	0
North Dakota	53	617.8	0	0	53	617.8	100.0	100.0	0	0
South Dakota	67	666.3	0	0	67	666.3	100.0	100.0	0	0
Utah	29	1,859.3	0	0	29	1,059.3	100.0	100.0	0	0
Wyoming	23	332.4	0	8	23	332.4	100.0	100.8	0	0
REGION 7	96	23,118.7	3	116.1	93	22,994.6	96.9	99.5	1	7,036.9
Arizona	14	1,772.5	0	0	14	1,772.5	100.0	100.0	0	0
California	58	19,963.5	0	0	58	19,963.5	100.0	100.0	1	7,036.9
Hawaii	4	769.9	0	0	4	769.9	100.0	100.0	0	0
Nevada	17	488.7	0	0	17	488.7	100.0	100.0	0	0
American Samoa	1	27.2	1	27.2	0	0	0.0	0.0	0	0
Guam	1	85.8	1	85.0	8	0	0.0	0.0	8	0
Midway-Wake	1	^a 3.9	1	3.9	0	0	0.0	0.0	0	0
REGION 8	197	7,218.5	5	931.7	192	6,278.8	97.5	87.1	6	776.2
Alaska	21	382.4	1	52.9	20	249.5	95.2	82.5	0	0
Idaho	44	713.8	8	0	44	713.0	100.0	100.0	2	173.5
Montana	57	694.4	1	0.1	56	694.3	98.2	100.0	1	5.0
Oregon	36	2,891.5	3	878.7	33	1,212.8	91.7	58.0	2	186.7
Washington	39	3,489.2	8	0	39	3,409.2	100.0	100.0	1	411.0

^a Essentially Counties except in Connecticut and Massachusetts.
^b 1970 Census.

^c "Emergency Information Readiness" package for distribution to the public.
^d 1960 Census.

**TABLE 5.— (Continued).—Status of community shelter plans
June 30, 1974**

Code 2		Code 3		Code 4		Code 5		Code 6		Area
Shelter Allocation Plan Approved		EIR ° Package (camera ready copy) Approved		Contract for EIR Issued		EIR Printed but not Distributed		EIR Printed and Distributed		
CSP Areas	Population (000)	CSP Areas	Population (000)	CSP Areas	Population (000)	CSP Areas	Population (000)	CSP Areas	Population (000)	
87	11,708.4	769	52,231.1	41	1,370.3	82	2,477.4	1,844	103,430.0	TOTAL
9	8,419.9	79	16,007.4	0	0	0	0	65	8,108.4	REGION 1
0	0	6	1,331.9	0	0	0	0	5	363.0	Connecticut
0	0	11	562.4	0	0	0	0	5	431.3	Maine
1	318.7	5	1,362.9	0	0	0	0	10	1,215.7	Massachusetts
0	0	9	719.2	0	0	0	0	1	10.5	New Hampshire
0	0	13	6,004.6	0	0	0	0	0	1,167.6	New Jersey
8	8,101.2	22	4,831.1	0	0	0	0	20	3,799.1	New York
0	0	0	0	0	0	0	0	5	949.7	Rhode Island
0	0	12	344.1	0	0	0	0	2	100.2	Vermont
0	0	1	851.2	0	0	0	0	0	0	Puerto Rico
0	0	0	0	0	0	0	0	1	62.5	Virgin Islands
0	0	130	10,440.5	1	17.8	36	770.1	108	11,732.7	REGION 2
0	0	0	0	0	0	0	0	3	548.1	Delaware
0	0	1	756.5	0	0	0	0	0	0	Dist. of Columbia
0	0	9	1,994.3	0	0	0	0	15	1,930.0	Maryland
0	0	33	5,225.1	0	0	0	0	34	6,572.4	Pennsylvania
0	0	65	2,042.3	0	0	35	719.4	26	1,523.6	Virginia
0	0	22	430.3	1	17.0	1	50.7	30	1,158.6	West Virginia
30	1,060.5	116	4,991.4	10	365.1	2	90.8	360	20,651.2	REGION 3
1	94.1	15	401.1	0	0	0	0	45	2,828.6	Alabama
3	253.5	7	662.6	0	0	0	0	50	5,618.7	Florida
2	18.4	19	1,735.1	7	273.8	0	0	45	1,005.9	Georgia
0	0	15	310.9	0	0	0	0	105	2,908.4	Kentucky
2	46.2	16	404.6	0	0	1	31.8	27	1,073.0	Mississippi
12	534.5	10	755.4	0	0	0	0	37	2,523.0	North Carolina
0	0	1	32.3	3	91.3	1	59.0	38	2,370.4	South Carolina
10	121.8	25	689.4	0	0	0	0	13	2,243.2	Tennessee
0	0	0	0	0	0	0	0	0	0	Canal Zone
33	1,650.6	177	11,803.6	9	398.3	14	700.2	253	18,214.1	REGION 4
1	195.3	51	2,690.3	2	176.6	5	353.6	41	1,712.4	Illinois
22	845.3	24	1,113.2	0	0	6	292.0	13	2,034.4	Indiana
0	0	42	2,103.5	6	215.4	0	0	32	2,350.2	Michigan
0	0	0	0	1	6.3	2	37.5	84	3,761.0	Minnesota
0	0	40	5,032.7	0	0	0	0	48	5,624.6	Ohio
10	610.0	20	943.9	0	0	1	17.1	35	2,723.5	Wisconsin
14	523.9	59	1,309.7	6	392.4	27	092.7	378	15,355.2	REGION 5
0	0	1	52.1	1	23.3	5	148.0	67	1,665.7	Arkansas
1	17.7	2	161.8	0	0	2	130.3	50	3,300.2	Louisiana
3	381.3	6	235.2	1	22.0	0	0	18	264.7	New Mexico
0	0	6	128.4	0	0	12	376.7	57	1,501.6	Oklahoma
10	124.9	44	732.2	4	347.1	8	228.9	178	8,623.0	Texas
0	0	140	3,476.3	15	196.7	3	23.6	471	12,067.8	REGION 6
0	0	0	0	1	7.6	0	0	62	2,199.7	Colorado
0	0	31	757.3	0	0	0	0	52	1,773.9	Iowa
0	0	16	165.4	10	151.7	0	0	79	1,932.0	Kansas
0	0	40	2,257.2	4	37.4	1	7.6	69	2,321.8	Missouri
0	0	53	296.4	0	0	2	16.0	37	1,164.6	Nebraska
0	0	0	0	0	0	0	0	53	617.8	North Dakota
0	0	0	0	0	0	0	0	67	666.3	South Dakota
0	0	0	0	0	0	0	0	29	1,059.3	Utah
0	0	0	0	0	0	0	0	23	332.4	Wyoming
0	0	22	2,976.1	0	0	0	0	70	12,981.6	REGION 7
0	0	0	0	0	0	0	0	14	1,772.5	Arizona
0	0	21	2,055.0	0	0	0	0	36	10,071.6	California
0	0	0	0	0	0	0	0	4	769.9	Hawaii
0	0	1	121.1	0	0	0	0	16	367.6	Nevada
0	0	0	0	0	0	0	0	0	0	American Samoa
0	0	0	0	0	0	0	0	0	0	Guam
0	0	0	0	0	0	0	0	0	0	Midway-Wake
1	45.5	46	1,138.1	0	0	0	0	139	4,319.0	REGION 8
0	0	4	156.0	0	0	0	0	16	93.5	Alaska
0	0	1	17.5	0	0	0	0	41	522.0	Idaho
0	0	18	337.3	0	0	0	0	17	352.0	Montana
0	0	15	458.7	0	0	0	0	16	567.4	Oregon
1	45.5	0	168.6	0	0	0	0	29	2,784.1	Washington

TABLE 6.—Shelter, located, licensed, and marked ^a
June 30, 1974

Area	LOCATED				LICENSED				MARKED			
	Facilities		Spaces (000) ^b		Facilities		Spaces (000) ^b		Facilities		Spaces (000) ^b	
	During FY 1974	Cum End of FY 1974	During FY 1974	Cum End of FY 1974	During FY 1974	Cum End of FY 1974	During FY 1974	Cum End of FY 1974	During FY 1974	Cum End of FY 1974	During FY 1974	Cum End of FY 1974
TOTAL	4,105	220,473	4,417	226,706	171	130,376	932	139,123	- 340	110,549	509	118,875
REGION 1	723	70,812	984	64,226	104	39,798	573	38,111	18	40,489	304	34,167
Connecticut	19	4,352	22	3,908	- 3	2,017	8	2,446	2	1,475	5	1,073
Maine	44	1,311	104	761	- 12	901	46	540	- 36	016	42	521
Massachusetts	03	0,274	228	7,480	- 19	4,626	77	3,836	- 20	3,962	73	3,167
New Hampshire	10	894	20	570	1	487	- 1	334	2	395	1	289
New Jersey	100	8,229	188	0,289	- 26	4,499	62	4,711	61	4,800	101	4,949
New York	363	43,606	259	39,935	56	24,269	104	24,046	11	26,623	125	21,859
Rhode Island	50	1,327	60	1,163	- 40	1,007	40	859	2	843	37	700
Vermont	39	562	94	342	20	384	10	194	- 2	290	2	166
Puerto Rico	2	2,218	2	1,767	201	1,597	150	1,137	0	1,194	1	643
Virgin Islands	- 3	39	- 1	11	- 2	11	- 1	1	- 2	11	- 1	1
REGION 2	697	35,667	213	34,448	- 1	17,471	- 19	20,613	- 71	17,039	- 56	18,711
Delaware	178	1,072	6	601	- 17	508	- 63	370	- 17	453	- 62	305
Dist. of Columbia	- 43	5,000	- 6	7,167	- 10	1,654	- 1	4,131	- 10	1,590	- 2	3,057
Maryland	108	3,806	66	5,199	19	2,541	4	2,963	- 9	2,076	- 16	2,098
Pennsylvania	356	17,092	60	15,651	- 2	9,446	7	10,006	- 35	9,257	4	9,184
Virginia	17	6,301	15	4,896	- 5	2,610	- 7	2,565	- 7	2,999	- 7	2,709
West Virginia	81	1,508	72	934	14	712	41	570	7	664	29	479
REGION 3	492	21,396	756	24,859	- 12	13,620	132	15,907	- 91	11,224	6	13,082
Alabama	14	2,507	104	1,894	- 39	1,798	7	1,443	- 37	1,463	- 7	1,143
Florida	91	3,583	307	7,119	43	1,989	156	3,385	13	1,527	42	2,725
Georgia	5	4,094	81	5,373	11	2,524	- 7	3,685	- 20	1,987	- 23	3,041
Kentucky	242	2,376	67	2,876	13	1,490	22	2,088	3	1,268	18	1,691
Mississippi	- 3	873	- 22	506	- 18	615	- 26	417	- 19	536	- 23	373
North Carolina	106	3,591	154	3,044	- 17	2,487	- 26	2,238	- 20	2,055	- 2	1,894
South Carolina	45	1,636	46	1,230	- 1	992	6	816	2	807	4	648
Tennessee	14	2,505	25	2,733	3	1,627	4	1,784	- 6	1,514	- 1	1,522
Canal Zone	- 22	231	- 7	83	- 7	98	- 4	50	- 7	67	- 4	45
REGION 4	971	42,983	1,114	43,245	12	24,151	293	25,670	- 77	21,055	271	21,314
Illinois	135	9,093	118	11,807	- 28	5,410	9	6,862	- 31	4,799	0	5,232
Indiana	191	4,179	73	3,675	16	2,137	23	2,075	10	1,773	13	1,741
Michigan	172	6,711	453	7,610	- 16	3,323	116	4,277	- 15	2,823	102	3,533
Minnesota	102	6,397	20	6,074	- 72	4,128	- 88	4,343	- 103	3,690	- 28	3,936
Ohio	65	9,535	89	8,630	17	5,012	55	4,384	6	4,884	68	4,133
Wisconsin	306	6,268	362	5,449	95	4,141	178	3,729	56	3,086	115	2,739
REGION 5	184	12,390	92	13,774	- 94	0,377	- 58	10,236	- 120	6,894	- 78	8,932
Arkansas	47	1,797	94	1,129	- 37	1,322	- 40	819	- 39	1,283	- 42	007
Louisiana	1	1,247	3	1,682	6	772	9	1,177	1	707	6	1,081
New Mexico	- 14	982	- 15	648	2	664	- 5	466	3	448	0	363
Oklahoma	- 15	2,600	- 165	2,537	- 39	1,692	- 78	1,855	- 51	1,324	- 73	1,632
Texas	165	5,764	176	7,779	- 26	3,927	57	5,920	- 34	3,132	31	5,049
REGION 6	300	23,663	361	16,891	112	14,707	126	11,187	75	12,877	101	9,962
Colorado	50	2,723	208	2,451	- 22	1,670	83	1,580	- 6	1,711	92	1,418
Iowa	120	3,884	71	2,070	132	2,561	56	1,475	67	2,277	31	1,463
Kansas	24	3,814	61	2,335	- 11	2,412	- 21	1,632	- 11	2,162	- 16	1,512
Missouri	- 2	5,585	- 1	5,965	- 2	2,733	0	3,544	- 2	2,165	0	2,922
Nebraska	- 14	2,450	- 3	1,484	- 7	1,708	10	1,099	- 9	1,306	- 2	879
North Dakota	18	992	5	461	8	884	2	416	10	793	3	380
South Dakota	6	1,190	- 8	482	0	1,038	- 12	444	- 4	925	- 13	370
Utah	97	2,428	22	1,365	12	1,239	6	811	29	1,171	7	843
Wyoming	1	597	5	278	2	462	1	185	1	367	0	175
REGION 7	553	14,194	699	22,400	- 57	7,182	- 216	12,709	- 53	4,735	- 195	8,756
Arizona	75	1,011	16	1,037	- 1	665	- 99	639	- 3	592	- 86	525
California	345	11,665	490	19,637	- 22	5,652	- 73	11,010	- 23	3,554	- 65	7,589
Hawaii	- 1	691	8	746	0	426	11	511	0	241	0	222
Nevada	63	713	67	850	- 31	419	- 57	542	- 27	336	- 43	419
American Samoa	0	3	0	0	0	1	0	0	0	1	0	0
Cuam	71	96	118	127	- 3	4	2	4	0	0	0	0
Midway-Wake	0	15	0	2	0	15	0	2	0	11	0	2
REGION 0	185	7,368	198	6,863	27	5,070	100	4,690	- 21	4,236	75	3,950
Alaska	0	325	0	216	10	247	10	189	0	220	0	159
Idaho	19	753	7	422	0	591	1	350	0	441	1	263
Montana	24	1,120	19	606	29	932	8	500	0	756	0	393
Oregon	28	2,070	53	2,169	- 14	1,026	28	1,169	- 16	843	27	1,037
Washington	114	3,100	110	3,449	2	2,274	45	2,482	- 5	1,976	47	2,098

^a Data contained in this table are net. Negative entries result where decreases due to demolition of buildings, recomputation of original capacity, etc., outweigh increases due to new construction, etc.

^b Figures may not add to exact totals due to rounding.

TABLE 7.—State level seminars for local civil preparedness directors
June 30, 1974

Area	Conducted During FY 1974		Cumulative	
	Seminars	Participants	Seminars	Participants
<u>TOTAL</u>	<u>97</u>	<u>1,831</u>	<u>238</u>	<u>4,912</u>
<u>REGION 1</u>	<u>28</u>	<u>510</u>	<u>58</u>	<u>1,079</u>
Connecticut	0	0	1	33
Maine	8	101	13	201
Massachusetts	7	132	15	294
New Hampshire	2	24	4	46
New Jersey	0	0	1	20
New York	0	0	0	0
Rhode Island	0	0	0	0
Vermont	7	184	14	307
Puerto Rico	4	69	8	156
Virgin Islands	0	0	2	22
<u>REGION 2</u>	<u>7</u>	<u>217</u>	<u>19</u>	<u>670</u>
Delaware	0	0	0	0
Dist of Columbia	0	0	0	0
Maryland	2	42	3	65
Pennsylvania	3	137	5	335
Virginia	1	25	6	178
West Virginia	1	13	5	92
<u>REGION 3</u>	<u>* 7</u>	<u>115</u>	<u>* 15</u>	<u>278</u>
Alabama	0	7	2	48
Florida	1	15	1	34
Georgia	0	6	0	20
Kentucky	4	61	7	100
Mississippi	0	5	0	17
North Carolina	0	5	0	18
South Carolina	1	9	1	23
Tennessee	0	7	0	18
Canal Zone	0	0	0	0
<u>REGION 4</u>	<u>18</u>	<u>376</u>	<u>49</u>	<u>1,103</u>
Illinois	4	87	9	226
Indiana	2	41	6	100
Michigan	2	62	7	209
Minnesota	6	103	19	393
Ohio	1	27	2	49
Wisconsin	3	56	6	126
<u>REGION 5</u>	<u>12</u>	<u>180</u>	<u>25</u>	<u>376</u>
Arkansas	2	49	5	85
Louisiana	2	16	3	27
New Mexico	3	28	5	69
Oklahoma	2	32	5	71
Texas	3	55	7	124
<u>REGION 6</u>	<u>16</u>	<u>264</u>	<u>46</u>	<u>874</u>
Colorado	4	61	8	130
Iowa	1	10	3	59
Kansas	1	24	3	98
Missouri	2	41	9	201
Nebraska	4	48	13	185
North Dakota	2	39	4	76
South Dakota	0	0	1	24
Utah	1	20	3	60
Wyoming	1	21	2	41
<u>REGION 7</u>	<u>4</u>	<u>55</u>	<u>10</u>	<u>163</u>
Arizona	1	27	2	49
California	0	0	2	45
Hawaii	1	3	1	3
Nevada	2	25	5	66
American Samoa	0	0	0	0
Guam	0	0	0	0
Midway-Wake	0	0	0	0
<u>REGION 8</u>	<u>5</u>	<u>114</u>	<u>16</u>	<u>369</u>
Alaska	1	27	2	59
Idaho	1	25	3	57
Montana	2	39	6	115
Oregon	1	23	3	76
Washington	0	0	2	62

* Includes combined Seminars held at Region Three Headquarters.

TABLE 8.—Federal Assistance to State and local governments ^a
June 30, 1974

Area	Personnel and administrative expenses			Systems maintenance and services, amounts obligated			
	Amount obligated	Political subdivisions		Total	Recurring charges		Education, training and public information
		Number participating	Staff		Communications	Warning	
TOTAL	\$27,131,702	^b 2,409	6,219	\$1,533,133	\$529,920	\$927,371	\$75,035
REGION ONE	6,674,834	422	1,443	402,015	150,296	200,807	43,632
Connecticut	400,000	29	00	32,149	9,292	21,005	1,053
Maine	364,400	108	165	47,192	26,640	0,074	12,478
Massachusetts	944,000	65	197	26,164	12,563	9,395	4,206
New Hampshire	01,434	18	31	2,576	1,074	1,502	0
New Jersey	090,000	72	206	39,114	11,060	17,696	10,358
New York	3,232,000	42	439	246,740	85,024	147,337	14,387
Rhode Island	218,000	0	37	2,859	766	2,093	0
Vermont	92,000	5	26	2,303	247	1,705	350
Puerto Rico	410,000	75	256	0	0	0	0
Virgin Islands	43,000	0	6	3,630	3,630	0	0
REGION TWO	2,476,255	170	547	199,400	46,561	147,626	5,213
Delaware	100,600	4	23	4,456	1,931	2,310	215
Dist. of Columbia	222,901	0	29	0,000	0,000	0	0
Maryland	568,969	22	90	39,205	10,515	20,141	629
Pennsylvania	098,411	61	196	110,092	13,292	94,526	3,074
Virginia	496,184	50	140	35,075	4,023	30,529	524
West Virginia	101,190	25	53	092	0	120	772
REGION THREE	4,673,001	461	1,102	112,239	22,016	88,174	2,048
Alabama	632,087	65	143	11,021	3,301	7,964	556
Florida	920,000	50	215	30,673	6,669	24,004	0
Georgia	806,510	89	204	17,397	1,654	15,743	0
Kentucky	323,675	45	109	5,301	2,072	3,308	0
Mississippi	367,337	54	117	0,499	4,271	4,227	0
North Carolina	650,917	63	152	8,847	960	7,867	12
South Carolina	506,815	39	115	6,199	468	4,252	1,480
Tennessee	457,660	48	127	23,422	2,613	20,009	0
Canal Zone	0	0	0	0	0	0	0
REGION FOUR	3,675,249	463	916	208,241	36,016	158,885	12,540
Illinois	083,000	100	305	39,833	3,640	35,758	435
Indiana	221,000	25	67	7,510	0	7,454	56
Michigan	665,358	68	122	25,179	4,893	19,080	1,205
Minnesota	854,000	105	209	40,550	2,106	34,758	3,686
Ohio	455,891	26	89	42,293	12,659	24,590	5,045
Wisconsin	596,000	59	124	52,876	13,518	37,245	2,113
REGION FIVE	2,149,190	242	502	38,424	12,648	25,391	386
Arkansas	374,624	59	121	3,980	1,672	2,308	0
Louisiana	539,000	30	131	10,246	3,104	7,142	0
New Mexico	112,226	18	36	1,154	194	960	0
Oklahoma	363,943	40	98	9,887	4,216	5,286	386
Texas	759,397	95	196	13,157	3,462	9,695	0
REGION SIX	2,115,846	400	698	165,700	68,081	95,900	1,799
Colorado	274,000	35	70	28,475	12,651	15,230	595
Iowa	330,000	76	117	18,260	5,001	13,266	0
Kansas	261,109	50	90	40,167	17,922	21,700	545
Missouri	350,061	63	120	30,786	8,751	21,730	298
Nebraska	277,250	50	94	21,664	5,637	15,965	62
North Dakota	171,000	50	67	8,129	5,422	2,707	0
South Dakota	190,737	41	71	7,234	3,339	3,720	175
Utah	157,000	10	32	1,400	1,101	174	125
Wyoming	96,689	25	37	9,657	8,257	1,400	0
REGION SEVEN	4,097,610	114	561	370,972	181,110	187,644	10,218
Arizona	316,205	21	64	30,241	19,644	9,576	1,022
California	3,100,729	74	412	272,480	145,004	119,301	0,103
Hawaii	319,596	4	36	69,093	11,670	57,629	594
Nevada	250,000	15	44	6,350	4,712	1,138	500
American Samoa	0	0	0	0	0	0	0
Cuam	31,000	0	5	0	0	0	0
Midway-Wake	0	0	0	0	0	0	0
REGION EIGHT	1,269,797	137	290	27,263	12,399	14,864	0
Alaska	233,600	4	23	2,450	633	1,025	0
Idaho	104,340	32	45	977	047	130	0
Montana	207,311	54	71	1,640	298	1,350	0
Oregon	100,546	18	37	1,382	1,302	0	0
Washington	544,000	29	114	20,790	9,239	11,559	0

^a Figures may not add to exact totals due to rounding.

**TABLE 8.— (Continued).—Federal Assistance to State and local governments
June 30, 1974**

Supporting systems equipment	Emergency operating centers	Surplus property, acquisition cost of transferred property (In thousands of dollars)		Contribution project loans, acquisition cost of property (In thousands of dollars)		Area
Amount obligated	Amount obligated	Fiscal years 1957 through 1974	Fiscal year 1974	Cumulative FY 71-74	FY 1974	
<u>\$2,743,045</u>	<u>\$6,505,208</u>	<u>\$718,423</u>	<u>\$92,887</u>	<u>\$77,272</u>	<u>\$25,979</u>	TOTAL
222,986	344,899	103,195	6,637	18,818	4,484	REGION ONE
10,785	21,152	12,638	1,988	642	64	Connecticut
49,708	47,270	12,972	380	1,571	221	Maine
50,552	60,097	29,275	1,884	1,246	114	Massachusetts
21,641	—42	4,291	302	495	10	New Hampshire
12,185	199,471	15,653	200	849	651	New Jersey
22,270	—3,443	17,867	1,043	10,850	3,002	New York
307	15,098	4,957	335	2,081	262	Rhode Island
5,333	5,296	2,173	356	944	121	Vermont
49,937	0	3,369	149	111	10	Puerto Rico
267	0	0	0	29	29	Virgin Islands
<u>294,838</u>	<u>978,325</u>	<u>43,777</u>	<u>6,545</u>	<u>3,564</u>	<u>462</u>	REGION TWO
12,772	—10,142	1,454	80	249	109	Delaware
—700	1,752	0	0	2	—1,905	Dist. of Columbia
72,440	309,306	11,495	954	591	432	Maryland
122,231	359,442	14,123	1,689	709	308	Pennsylvania
64,557	306,543	9,178	833	975	727	Virginia
23,537	11,425	7,527	2,989	1,038	791	West Virginia
<u>449,168</u>	<u>1,066,643</u>	<u>172,384</u>	<u>26,038</u>	<u>12,053</u>	<u>4,790</u>	REGION THREE
87,406	105,735	23,465	3,906	1,707	611	Alabama
88,839	83,891	35,399	3,957	1,795	833	Florida
98,890	243,150	30,716	2,415	1,454	646	Georgia
10,669	68,431	14,335	4,173	1,274	378	Kentucky
71,828	221,495	26,498	3,726	1,960	729	Mississippi
23,836	76,964	19,529	2,466	524	292	North Carolina
41,110	105,382	12,655	2,116	1,408	649	South Carolina
26,591	161,597	9,787	3,279	1,931	652	Tennessee
0	0	0	0	0	0	Canal Zone
<u>298,220</u>	<u>575,590</u>	<u>93,951</u>	<u>14,317</u>	<u>14,973</u>	<u>6,488</u>	REGION FOUR
34,969	197,499	22,883	2,488	3,530	713	Illinois
33,319	53,774	8,699	1,688	2,017	1,524	Indiana
29,286	—27,898	34,818	2,568	1,679	922	Michigan
52,620	149,948	9,650	1,102	3,214	1,426	Minnesota
94,692	83,884	11,746	4,262	1,719	1,282	Ohio
53,334	118,384	6,155	2,209	2,814	621	Wisconsin
<u>282,490</u>	<u>1,025,733</u>	<u>113,251</u>	<u>14,404</u>	<u>4,475</u>	<u>1,937</u>	REGION FIVE
139,158	129,814	20,138	2,639	112	70	Arkansas
11,566	122,990	22,095	1,594	614	404	Louisiana
43,650	80,796	2,857	314	539	242	New Mexico
70,115	176,591	14,837	1,760	305	135	Oklahoma
18,001	515,541	53,325	8,097	2,905	1,086	Texas
<u>691,575</u>	<u>782,824</u>	<u>59,722</u>	<u>7,692</u>	<u>8,417</u>	<u>3,800</u>	REGION SIX
28,362	70,129	10,519	2,233	1,288	632	Colorado
64,054	164,525	6,682	1,048	1,937	595	Iowa
136,907	30,521	3,252	279	593	138	Kansas
205,814	245,648	7,433	458	891	439	Missouri
87,008	38,533	2,448	718	660	315	Nebraska
82,625	29,605	5,092	717	1,066	440	North Dakota
130,022	94,680	5,753	658	927	494	South Dakota
7,320	78,257	13,301	1,122	605	520	Utah
—50,536	30,926	5,242	459	450	227	Wyoming
<u>196,893</u>	<u>971,805</u>	<u>105,709</u>	<u>14,039</u>	<u>5,592</u>	<u>871</u>	REGION SEVEN
6,738	—5,673	6,724	1,266	255	222	Arizona
46,980	589,926	90,574	10,888	2,042	350	California
141,401	121,221	2,529	991	470	9	Hawaii
17,774	229,931	5,708	894	2,825	290	Nevada
0	0	0	0	0	0	American Samoa
—16,000	36,400	174	0	0	0	Guam
0	0	0	0	0	0	Midway-Wake
<u>306,875</u>	<u>759,388</u>	<u>26,432</u>	<u>3,213</u>	<u>9,377</u>	<u>3,151</u>	REGION EIGHT
92,670	5,000	3,301	997	1,230	754	Alaska
30,872	150,427	4,527	198	1,208	676	Idaho
34,269	153,332	2,351	627	2,759	616	Montana
82,182	306,716	5,448	249	1,900	643	Oregon
66,882	143,913	10,805	1,142	2,280	462	Washington

**TABLE 9.—Research funds programed and obligated
Initial obligations
(In thousands)**

Type of Research	Fiscal year 1974 appropriations	
	Programed	Obligated
Total	^a ^b \$2,500	^a \$2,352
Shelter Research	750	611
Protection studies	396	410
Shelter environmental studies	58	33
Subsistence and habitability studies	13	0
Prototype design for life support systems	0	0
Shelter management studies	54	0
Shelter systems studies	229	168
Support Systems Research	708	662
Monitoring systems studies	42	0
Communications and warning studies	184	38
Reduction of vulnerability	0	136
Emergency phase medical research	58	75
Fire effects and protection	312	245
Emergency operations research	112	168
Postattack Research	542	431
Radiological phenomena and effects	110	71
Radiological countermeasures	100	82
Repair and reclamation of damage	100	48
Postattack medical, health, and welfare operations	116	0
Recovery and maintenance systems	116	230
Systems Evaluation	500	600
Civil defense systems analysis	205	153
Strategic analyses	20	17
Vulnerability and requirements research	125	5
Organization and training research	83	265
Planning support research	0	7
Information systems analyses	0	0
Physical environments studies	5	5
Social and psychological studies	62	148
Management and Support	0	48

Figures may not add to totals due to rounding.

^a Excludes FY activity from earlier appropriations: Programed, \$422 thousand; obligated, \$340 thousand.

^b Excludes \$500 thousand undistributed reserve.

AGREEMENTS

**MEMORANDUM OF UNDERSTANDING WITH
THE NATIONAL DEFENSE TRANSPORTATION ASSOCIATION
(External Relations)**

PURPOSE

a. This circular transmits a copy of the Understanding between the National Defense Transportation Association (NDTA) and the Defense Civil Preparedness Agency, dated September 26, 1973. It provides for NDTA support to DCPA at all levels in disaster preparedness planning. It also provides information and guidance for all concerned.

b. The Understanding (attachment A) is a cooperative agreement between NDTA and the Defense Civil Preparedness Agency to identify all transportation personnel, equipment and other resources for local emergency readiness; and to coordinate its management to supply and support essential services in peacetime and wartime disasters.

GENERAL

Civil defense functions and responsibilities are set forth principally

in the Federal Civil Defense Act of 1950, as amended. Executive Order 10952, issued July 20, 1961 assigned major civil defense functions to the Secretary of Defense. He established the Defense Civil Preparedness Agency and delegated the functions under the Executive Order to the Director by Department of Defense Directive 5105.43. In that directive he also delegated to the Director, DCPA, acting on behalf of the Secretary of Defense, and the Director, Office of Emergency Preparedness, which agreements have been continued in effect upon the reassignment of disaster relief functions to the Federal Disaster Assistance Administration, Department of Housing and Urban Development.

In discharging his responsibilities, the Director of the Defense Civil Preparedness Agency coordinates with Federal, State and local governments to develop, execute, and administrate civil preparedness programs.

**UNDERSTANDING BETWEEN THE NATIONAL DEFENSE TRANSPORTATION ASSOCIATION
AND THE DEFENSE CIVIL PREPAREDNESS AGENCY
ON NDTA SUPPORT TO LOCAL GOVERNMENT IN EMERGENCIES**

PURPOSE

This understanding between the Defense Civil Preparedness Agency (DCPA) and the National Defense Transportation Association (NDTA) establishes policies and guidance so that local government and NDTA chapters can cooperate in making necessary arrangements for NDTA members to assist in disaster preparedness planning; to identify all transportation personnel, equipment and other resources for local emergency readiness; and to coordinate its management to supply and support essential services in peacetime and wartime disasters.

DEFENSE CIVIL PREPAREDNESS AGENCY

a. DCPA is an Agency of the Department of Defense and is under the direction, authority and control of the Secretary of Defense. Its national headquarters is located in the Pentagon, Washington, D. C., and its eight Regional Offices are located in Maynard, Massachusetts, with a field office in New York City; Olney, Maryland; Thomasville, Georgia; Battle Creek, Michigan; Denton, Texas; Denver, Colorado, with a field office in Kansas City, Missouri; Santa Rosa, California; and Bothell, Washington.

b. Civil defense functions and responsibilities are set forth principally in the Federal Civil Defense Act of 1950, as amended, Executive Order 10952, issued July 20, 1961 assigned major civil defense functions to the Secretary of Defense. He established the Defense Civil Preparedness Agency and delegated the functions under the Executive Order to the Director by Department of Defense Directive 5105.43. In that directive he also delegated to the Director, DCPA the task of providing planning assistance to State and local governments in their development of natural disaster preparedness plans and capabilities in accordance with agreements between the Director, DCPA, acting on behalf of the Secretary of Defense, and the Director, Office of Emergency Preparedness, which agreements have been continued in effect upon the reassignment of disaster relief functions to the Federal Disaster Assistance Administration, Department of Housing and Urban Development.

c. In discharging his responsibilities, the Director of the Defense Civil Preparedness Agency coordinates with Federal, State and local governments to develop, execute, and administrate the following civil preparedness programs:

(1) Increase the capability of local government to conduct emergency operations in an attack emergency or any other disaster situation.

(2) Offer individualized on-site assistance by Federal and State staff members to selected localities in assessing their existing level of operational readiness and in preparing and executing plans to improve this readiness.

(3) Maintain, and improve as appropriate, the shelter system, including evacuation and movement to shelter.

(4) Continue to improve the system of warning Federal authorities, State and local officials, and the civilian population of enemy attack, and communications between authorities and to the population in shelters.

(5) Encourage the developing and staffing of Emergency Operating Centers and the improving of direction and control capabilities before, during and after an attack or other disaster.

(6) Develop public information and training techniques to make local government officials and the public aware of the importance of civil preparedness, knowledgeable of self and family protective measures, and motivated to support civil preparedness programs.

**NATIONAL DEFENSE
TRANSPORTATION ASSOCIATION**

a. NDTA is a patriotic, educational, scientific, and nonprofit organization dedicated to transportation preparedness.

b. The Association presently has 100 chapters in the United States and overseas, and a membership of over 12,000. Its headquarters is located in Washington, D.C. All of its local chapters are autonomous within the framework of its Constitution and Bylaws.

c. The aims and objectives of the Association, include undertaking to:

(1) Provide a common Forum to discuss and endorse programs designed to promote transportation preparedness in the Free World.

(2) Maintain an awareness among the members of the Association and inform the public of the critical importance of transportation preparedness and its effectiveness and use during emergencies.

(3) Provide active assistance, by study and action, in a non-partisan capacity to appropriate government agencies engaged in transportation preparedness planning; and promote recognition of the need for cooperation and support of carrier management in operationally effective planning.

(4) Encourage implementation of plans and programs to assure transportation capability in time of emergency.

(5) Provide advisory assistance, upon request, to governmental agencies concerning preparedness transportation problems.

(6) Encourage transportation and related industries to make available management and operational personnel for prompt support of disaster agencies in periods of emergency.

(7) Foster a spirit of patriotic goodwill, cooperative endeavor, and mutual understanding among its members, industrial entities, the transportation industry, the Defense Forces, and other governmental agencies concerned with transportation.

POLICIES

In order that local privately owned transportation resources may be coordinated and utilized to the fullest advantage in rendering assistance to the civilian population in emergency or disaster situations, DCPA and NDTA affirm the following policies:

a. The responsibility for civil preparedness is vested jointly in the Federal Government and the States and their political subdivisions.

b. DCPA and State and local government civil preparedness organizations are the agencies primarily responsible for plans and programs for the protection and survival of the civilian population, and the safety of property during civil preparedness emergencies. DCPA is basically oriented to advising and guiding State and local governments on actions that should be taken in civil preparedness emergency situations.

c. NDTA, through its Executive Vice-President, will at all times maintain close and continuous liaison with DCPA.

d. NDTA will provide voluntarily, through its chapters, in accordance with local agreements, transportation in emergency support to State and local government.

e. In a civil preparedness emergency or in preparation therefor, local civil defense directors may request assistance through NDTA local chapters. The assistance requested may include, but is not limited to:

(1) Overall operational planning for emergencies such as the on-site assistance program and other local preparedness planning.

(2) Voluntary training for specific positions on the emergency operations staffs of local civil preparedness organizations.

(3) Provision of inventory data on transportation resources.

(4) Surveys and damage assessment.

(5) Transportation of essential supplies and equipment from depots, warehouses, stores, or other locations to relief centers or fallout shelters.

(6) Transportation of civil defense personnel and emergency assistance workers.

(7) Emergency movement of people and material.

f. The assistance to be rendered by NDTA is intended to maximize local transportation responsiveness to civil defense requirements within the framework of applicable transportation allocations, priorities, and controls, and is to be in coordination with the local transportation group established pursuant to State or local governmental authority.

g. Agreements are local in nature and are subject to all local conditions imposed by government agencies, the transportation companies and their insurers and government/company financial or reimbursement regulations. All pertinent constraints and restrictions should be delineated in local agreements.

h. Local NDTA chapters will provide technical advice and guidance and assist local governments in the development of local agreements and detailed operating plans for the full utilization of transportation resources in emergency planning and operations. Such voluntary arrangements will extend only through the immediate emergency survival period. NDTA National, Regional and State Offices will cooperate with Regional offices and State governments to insure that both Regional and State civil defense requirements are recognized and that provisions are made for Regional and State emergency civil defense demands.

i. State and local governments are encouraged to invite NDTA chapters to participate in State and local civil defense tests, training and exercises.

j. Since the local arrangements are the means by which this Understanding may be effectively implemented, DCPA will furnish copies of this national Understanding to the DCPA Regional Directors and to State and local civil defense authorities; and NDTA will furnish copies to its National, Regional, and State officers and domestic chapters so that implementing local agreements may be consummated.

SUPERSESSON

The Understanding Between the National Defense Transportation Association and the Department of the Army on NDTA Support to Civil Defense in Emergencies, dated 5 October 1971, is superseded hereby.

EFFECTIVE DATE

The provisions of this Understanding will be effective from 26 September 1973, unless otherwise changed or terminated.

JOHN E. DAVIS
Director
Defense Civil Preparedness Agency

ROBLEY L. MANGOLD
Chairman of the Board
National Defense Transportation Association

PETER T. ALBERT
President
National Defense Transportation Association

UNDERSTANDING BETWEEN DCPA AND THE SALVATION ARMY

PURPOSE

A formal understanding between The Salvation Army and the Defense Civil Preparedness Agency was agreed to and signed October 26, 1973. The understanding, a copy of which is attached, is expected to assist in providing better protection and care of disaster victims and to improve emergency preparedness planning and operations. It is intended to bring about close, continuing cooperation between Salvation Army units and civil preparedness agencies at local, State, and Federal levels.

GENERAL

The understanding is designed for cooperative action to carry out basic, long-established goals of DCPA and The Salvation Army. The Salvation Army wants its resources, experience and capabilities, which are described in the understanding, used to the best possible advantage in meeting the needs of distressed persons in disaster situations. DCPA has long emphasized that to protect their residents effectively from peacetime and wartime disaster, local and State governments must make full use of private, nongovernmental "protective resources"—such as those of The Salvation Army.

The understanding specifically calls for:

Continuing liaison, exchange of information, and cooperative preparedness planning by DCPA headquarters and eight Regional Offices with The Salvation Army headquarters and four Territorial Commands.

Encouragement of agreements between the State civil preparedness agencies and the Salvation Army's 39 Divisional Commands and be-

tween local civil preparedness agencies and The Salvation Army's local corps and units.

Encouragement of State and local government support of Salvation Army disaster activities and involvement of Salvation Army units in the disaster planning and operations of State and local governments, including the assignment of Salvation Army personnel to State and local emergency operating centers in times of disaster.

Civil preparedness information and guidance to be furnished to Salvation Army units, and civil preparedness training to be made available to Salvation Army personnel.

Salvation Army disaster planning and operations activities to be coordinated with those of State and local governments.

Salvation Army assistance to State and local governments in providing for the emergency housing, feeding, and other care of disaster victims.

Participation of Salvation Army personnel in the Community Shelter Planning and On-Site Assistance activities carried on by DCPA in collaboration with State and local governments.

The Salvation Army has traditionally placed great emphasis on emergency relief services to the victims of disasters. This includes emergency feeding, housing, providing of clothing, registration and identification of those affected, furnishing bedding and furniture, and assisting in cleanup operations. Needed services to rescue and recovery workers also have been provided. Many decades of disaster service has given The Salvation Army and its personnel unique and valuable experience in this field.

UNDERSTANDING BETWEEN THE DEFENSE CIVIL PREPAREDNESS AGENCY AND THE SALVATION ARMY

PURPOSE

This understanding describes the responsibilities and resources of the Defense Civil Preparedness Agency (DCPA) and The Salvation Army for disaster preparedness in peacetime and wartime disasters; outlines areas of mutual planning and support at national and regional-territorial levels; and provides a frame of reference for cooperative and supporting arrangements between State and local governments and the appropriate Divisional and local organizations of The Salvation Army.

STATEMENT OF GENERAL RESPONSIBILITIES:

Defense Civil Preparedness Agency

The Director, DCPA, in coordination with Federal, State and local governments, is responsible for the development and execution of Federal Civil Defense preparedness programs and for providing planning assistance to State and local governments in their development of peacetime disaster preparedness plans and capabilities.

Civil Defense preparedness functions include:

—A fallout shelter program including evacuation and movement to shelters;

—A chemical, biological and radiological warfare defense program;

—Steps necessary to warn or alert Federal military and civilian authorities, State officials, and the civilian population of enemy attack upon the United States. (Responsibility for developing, deploying and operating military surveillance and warning systems remain with the appropriate military department);

—Civil defense communications, including an appropriate warning network, communications between authorities, and communications procedures for reporting on radiological monitoring and providing instructions to the public in shelters and elsewhere;

—Emergency assistance to State and local governments in a post-attack period;

—Protection and emergency operational capability of State and local government agencies, in keeping with plans for the continuity of government;

Programs for making financial contributions for civil defense purposes to the States;

—Plans, and the operation of systems, to undertake a nationwide postattack assessment of the nature and extent of the civil damage resulting from enemy attack and the surviving resources, including systems to monitor and report specific hazards resulting from the detonation or use of special weapons;

—A program of training and education to insure administrative and operational capability;

—Necessary arrangements for the donation of Federal surplus property to State and local government; and

—The establishment and administration of a Civil Preparedness Advisory Committee to advise the Secretary of Defense.

Peacetime disaster preparedness functions include:

—A program to utilize and make available the civil defense communications system for disaster warnings.

—Planning assistance to State and local governments in development of natural disaster preparedness plans and capabilities.

—Provision of necessary training.

The Salvation Army

The Salvation Army is a religious, charitable, non-profit organization whose officers can perform marriage and burial services, administer social welfare and conduct the business of the organization. It is a national organization, and while not primarily a disaster relief organization, has a continuing interest in and capability for short term emergency disaster relief services at points of greatest need. Salvation Army aid to disaster victims is not dependent on a Presidential or other Federal disaster declaration, but is provided as determined by priority of need and availability of facilities, equipment and personnel.

Through its various local organizations, and with the assistance of Divisional, Territorial and National Headquarters, The Salvation Army provides a range of emergency welfare services to individuals and families in emergency disaster situations. These emergency services may include:

Services to disaster workers and victims

Feeding (groups and individuals), including mobile canteens

Housing (groups and individuals)
 Clothing distribution
 Registration and identification
 Counseling
 Furniture and bedding
 Household needs
 Personal services to disaster victims
 Assisting in clean up.

Assistance to individuals and families is usually provided in kind,

although provisions for emergency services on a cash basis may at times be necessary or feasible. Emergency services available in the different locations vary, depending on already available equipment and facilities, and not all services can be provided simultaneously. Depending on need, priority, availability of services by other similar organizations, and in consultation with agencies responsible for disaster coordination, The Salvation Army responds and deploys its staff, equipment and facilities accordingly.

The Salvation Army has immediately available in many localities, housing and feeding facilities, radio equipped mobile canteens and various vehicles. Its personnel are experienced in disaster operations and qualified to recruit, organize and direct volunteer manpower for carrying out emergency disaster relief. It may serve as a collection and distribution agency for food, clothing and other supplies.

The Salvation Army operates on a self-sustaining basis and assumes all administrative and financial responsibility in providing disaster relief services. It does not maintain a national disaster relief fund and cannot conduct long-term rehabilitation services. The Salvation Army's services are primarily provided during immediate emergency periods.

The Salvation Army works with Federal, State and local agencies, and with non-governmental agencies and other groups in preparing for and carrying out emergency disaster services.

Organization of Defense Civil Preparedness Agency (DCPA)

DCPA is established as an Agency of the Department of Defense and is under the direction, authority and control of the Secretary of Defense. Its national headquarters is located in the Pentagon, Washington, D.C. DCPA is civilian in character and direction.

The responsibility for civil preparedness (civil defense) is shared jointly by the Federal Government, and the several States and their political subdivisions. The Federal role is to provide overall guidance, financial and technical assistance to the States and localities. The Federal Government exercises no command or control over the States and localities. The States and localities have the direct operational role in time of disaster.

To facilitate program administration, the United States is divided into eight DCPA regional areas, with headquarters located in Maryland, Massachusetts, with a field office in New York City; Olney, Maryland; Thomasville, Georgia; Battle Creek, Michigan; Denton, Texas; Denver, Colorado, with a field office in Kansas City, Missouri; Santa Rosa, California; and Bothell, Washington. A Staff College is located in Battle Creek, Michigan.

Augmented by the skills and other resources of the private sector, DCPA works with the 50 States, Puerto Rico, and the Canal Zone, the Virgin Islands, Guam, American Samoa, and the District of Columbia; and through the States, with counties, parishes, and local governments to help prepare the Nation for coping with the effects of man-made or natural disasters.

Organization of The Salvation Army

The National Commander of The Salvation Army in the United States is located in the National Headquarters, 120 W. 14th Street, New York, New York. The Continental United States is administratively divided into four Territorial areas. The headquarters of the Territorial Commanders are as follows:

Eastern Headquarters—120 W. 14th Street, New York, New York
 Central Headquarters—860 N. Dearborn Avenue, NE, Chicago, Illinois

Southern Headquarters—675 Seminole Avenue, NE, Atlanta, Georgia
 Western Headquarters—101 Valencia Street, San Francisco, California

There are 39 Divisional Headquarters established under the Territorial Commanders and headed by Divisional Commanders. The division roughly corresponds with the States, with a division in some instances covering more than one State. The Divisional Headquarters is responsible for organizing, directing and coordinating welfare and emergency functions in its assigned area. At the community level, corps, city commands, centers or service units are established. For disaster purposes, a zone or area director is designated by the Divisional Commander to be responsible for all emergency disaster operations in his geographical area.

There are over 1104 corps and 9320 centers and service units throughout the United States. More than 5000 officers and 15,377 full time employees; 38,744 people serving in service units, and over 226,274 men and women volunteers are associated with The Salvation Army.

NEED FOR COORDINATION:

It is Salvation Army policy that its resources and capabilities be used to the best possible advantage in meeting the needs of distressed persons in disaster situations. The Salvation Army has resources available at Territorial, Divisional and local levels. DCPA has resources available at National and Regional levels and has cooperative relationships with State and local civil preparedness agencies at the State and local levels. Cooperation and coordination are thus required at each level of operation.

Therefore, it is agreed that:

1. Cooperative arrangements for planning, exchange of information and continuing liaison regarding preparedness for disaster operations will be developed and maintained by DCPA and The Salvation Army on national and regional-territorial levels; State and local counterparts of the two organizations will be encouraged to make similar arrangements. Continuing coordination at the several levels of government and The Salvation Army before, during and after disasters strike will help to avoid duplication of effort and insure that disaster needs are met.

2. The Salvation Army and the DCPA will encourage the promulgation of agreements between officers of The Salvation Army and State and local civil preparedness authorities, to insure a clear understanding of mutual responsibilities for disaster preparedness and effective operations in both peacetime and wartime emergencies.

3. In connection with the above, civil preparedness agencies at Federal, State and local levels should respect The Salvation Army's chain of command. The Salvation Army in turn recognizes that government exists to provide leadership and direction and will plan and conduct its disaster operations in accordance with and in cooperation with State and local governmental authorities.

IN IMPLEMENTING THIS UNDERSTANDING:

DCPA:

1. To encourage the preparing of Salvation Army officers and employees to carry out their disaster responsibilities, will, as requested, make civil preparedness guidance, manuals, and other publications and appropriate training available to The Salvation Army.

2. Will encourage State and local civil preparedness agencies, including departments of government charged with emergency functions, to work closely with The Salvation Army Territorial, Divisional and local units and involve and support them to the maximum extent possible, in disaster planning and operations at State and local levels.

3. Will encourage State and local civil preparedness agencies and private industry, to cooperate with The Salvation Army by providing physical facilities, communications, transportation, emergency equipment and volunteer personnel as needed to support their agreed to emergency plan.

4. Will encourage State and local civil preparedness agencies to consider the assignment of qualified Salvation Army personnel to emergency operating centers established by State or local governments.

The Salvation Army:
 1. Will exchange information on the preparation and dissemination of materials related to disaster preparedness planning and will encourage selected personnel to take DCPA sponsored training.

2. Will encourage its Territorial, Divisional and local units to plan with civil preparedness agencies to accept specific disaster tasks and to work toward comprehensive disaster preparedness planning at the State and local level.

3. As requested, will assist and participate in the DCPA On-Site Assistance program to increase the emergency operating capabilities of local governments.

4. Will keep DCPA and State and local civil preparedness authorities informed as to the nature and extent of its disaster operations and its relationships with other State and local agencies of government in disaster preparedness planning.

5. Will accept invitations to provide Salvation Army representation in emergency operation centers.

6. Will cooperate with State and local governments in pre-designating potential shelter facilities for displaced persons, and in related pre-disaster planning and support for emergency disaster housing.

7. Will cooperate and coordinate with civil preparedness authorities in planning and arranging for appropriate mass feeding locations, facilities and supplies.

8. In war-caused situations, The Salvation Army will use its facilities and personnel to support and assist welfare and other emergency operations activities of Federal, State and local governments to the extent possible, while carrying out its other essential responsibilities and assignments.

9. In time of war, the disposition and use of all possible Salvation Army resources, human and material, at State and local levels, will be subject to prior agreements made between the appropriate governmental body and The Salvation Army.

DISTRIBUTION OF THIS UNDERSTANDING:

Since State and local arrangements are the principal means by which this understanding may be effectively implemented, DCPA will furnish copies of this national understanding to State and local civil preparedness officials, and The Salvation Army will furnish copies to its Territorial, Divisional and local corps and units so that implementing agreements may be consummated.

The provisions of this understanding will be effective from October 26, 1973, unless otherwise changed or terminated.

JOHN E. DAVIS
 Director
 Defense Civil Preparedness Agency

PAUL J. CARLSON
 National Commander
 The Salvation Army

MEMORANDUM OF UNDERSTANDING WITH THE U.S. ARMY COMMUNICATIONS COMMAND

PURPOSE AND SCOPE

This instruction transmits, for the information and guidance of all concerned, a copy of a Memorandum of Understanding between the Defense Civil Preparedness Agency (DCPA) and the U.S. Army Communications Command (USACC) concerning civil preparedness communications and warning support.

RESPONSIBILITY

The Staff Director, Support Systems Division, under the general supervision of the Deputy Assistant Director for Operations, Plans and Operations, will be responsible for coordinating DCPA functions under the terms of the attached Memorandum of Understanding.

MEMORANDUM OF UNDERSTANDING BETWEEN THE DEFENSE CIVIL PREPAREDNESS AGENCY AND THE U.S. ARMY COMMUNICATIONS COMMAND

PURPOSE

The purpose of the memorandum is to insure mutual understanding between the Defense Civil Preparedness Agency (DCPA) and the United States Army Communications Command (USACC), concerning their respective roles, relationships and responsibilities relative to support provided the DCPA by USACC in the civil preparedness communications and warning functional areas.

REFERENCES

- a. DoD Directive 5105.43, dated 14 July 1972.
- b. DoD Directive 5000.19.
- c. Army Regulation 10-13.
- d. Army Regulation 105-22.

RESPONSIBILITIES

a. The Secretary of Defense has delegated to the Director, Defense Civil Preparedness Agency, overall responsibility for development and execution of the Civil Preparedness Program. The Director of DCPA will:

- (1) Provide policy guidance on communications and warning systems for Civil Defense to USACC.
 - (2) Exercise operational control of the operating systems and the warning officer functions.
 - (3) Provide DCPA requirements to USACC, in the format of annual update, to the Army portion of the Consolidated Telecommunications Program (CTP), for support to research and development programs for communications and warning systems. Requirements will include a description of the program area, types of support required, and priorities. All such requirements will be subject to reimbursement from DCPA so long as the effort is in support of on-going research and development programs.
 - (4) Provide USACC, for inclusion in the USACC and Department of Army Five-Year Program, all new requirements for communications and warning systems, in sufficient scope and description to enable USACC to develop sub-system project plan definition for approval and programming and budgeting. Requirements will be provided annually for the budget year plus 1 (program year) to coincide with the annual Five-Year Consolidated Telecommunications Program Cycle. Financial and manpower requirements to support operation and maintenance of existing systems will be developed by USACC.
 - (5) Provide an annual program and specific assignments and projects, along with general performance standards, for the radiological engineering and test program on a continuing basis. Provide reimbursement for personnel, material and other direct costs for the staffing and operation of the RADEF Instrumentation Test Facility upon presentation of a quarterly Standard Form 1080 to DCPA.
 - (6) Defend, as required, USACC requirements for communications and warning system support to DCPA in program and budget hearings at all levels.
 - (7) Provide investment funding and deployment for the DID System and perform procurement and contracting functions associated with the Edgewood Facility.
 - (8) Provide Reports Control Symbols, in accordance with reference 2b, for those reports identified in paragraph 3b(9).
 - (9) Participate in the USACC program for the annual review and rejustification of all leased services and facilities falling under the purview of AR 105-22.
 - (10) Provide full time secretarial support for the eight USACC facilities in the DCPA regions until such time as USACC can assume these responsibilities.
- b. The Commanding General, USACC, will:
- (1) Direct operational implementation of DCPA policy for, and will operate and maintain the following:
 - (a) CD National Teletype System (CDNATS).
 - (b) CD National Voice System (CDNAVS).
 - (c) CD National Radio System (CDNARS).
 - (d) National Warning System (NAWAS).
 - (e) Washington Area Warning System (WAWAS).
 - (f) Decision Information Distribution System (DIDS).
 - (g) Regional Communications Centers and Warning Facilities.
 - (h) RADEF Instrumentation Test Facility.
 - (i) Three National Warning Centers.
 - (j) DCS AUTODIN Terminal.

SUPERSESION

Memorandum of Agreement for Transfer of Communications and Warning Functions to U.S. Army Strategic Communications Command, dated January 12, 1966, is hereby superseded.

EFFECTIVE DATE

This instruction is effective the date of issuance.

JOHN E. DAVIS
Director

(2) Provide new communications and warning systems, and changes to existing systems, to include planning, programming, detailed engineering, procurement (to include contracting and system provisioning), system interconnections, deployment, installation, testing, manning, activation, operation and maintenance, and research and development support.

(3) In coordination with DCPA, provide test and acceptance of new and changed facilities and systems, and provide funds for all necessary operating and maintenance training and material.

(4) Assist the DCPA, in coordination with other government agencies, in matters of site acquisition and accountability, environmental impact, frequency allocations, and other matters requiring technical communications-electronic expertise.

(5) Prepare logistical support plans and communication system plans for the necessary maintenance and operation of the DID System.

(6) Provide technical support in developing and implementing regional communications and warning plans, including:

(a) Coordination with, and provision of, technical assistance to military, Federal, and State agencies in the development of the civil defense plans, agreements and procedures.

(b) Coordination with other agencies in connection with continuity of communications and warning capabilities when an operating site is relocated.

(c) Development of communications and warning portions of the regional emergency operations plan, e.g., communications requirements, alerting procedures, and augmentation of the communications center during emergencies and exercises.

(d) Regional Communications Center support services for other agencies relocating to a Federal Regional Center.

(e) Assistance in the Broadcast Station Protection Program and other communications and warning programming activities of the Region.

(f) Promotion and administration, under DCPA policy guidance, of the Radio Amateur Civil Emergency Services (RACES) Program in the Region.

(7) Provide technical assistance and guidance to the State and local governments in the promotion and development of emergency communications and warning programs, including:

(a) Development of program papers for communications and warning requirements to assure an orderly progress towards ultimate goals with time-phase funding support.

(b) Technical advice and assistance in development of State and local emergency communications and warning plans and capabilities in accordance with the Civil Preparedness Guide. This includes the review of State and local communications and warning plans for technical validity in connection with contribution requests, and support to DCPA "On-Site Assistance."

(8) Provide technical advice, health physics support and assistance in the development and operation of the radiological engineering and test program. Results of radiological engineering and test projects shall be reported at the completion of each project and interim reports on progress shall be prepared as deemed necessary.

(9) Provide DCPA with:

(a) A quarterly program review and analysis report on communications and warning programs.

(b) A quarterly financial report on the radiological engineering and test program.

(c) An annual report on the funding of communications and warning programs.

(d) An annual report of suggested research and development projects based on evaluation of existing systems and future communications and warning needs.

(e) The annual revision of the Civil Defense Communications and Warning Program Definition as developed to support DCPA requirements with an annual technical assessment of program accomplishment.

(f) An annual inventory report on all capital equipment in the RADEF Instrumentation Test Facility used for test and evaluation in accordance with DCPA property accounting.

(10) Establish and maintain a single point of contact for the purpose of facilitating the exchange of information between DCPA and all command levels of USACC.

(11) Assume full responsibility for real property/facilities and equipment associated with the USACC operated sites, except for the RADEF Instrumentation Test Facility, to include:

(a) Accountability for real property/facilities and equipment at each location.

(b) Operation and maintenance of facilities and equipment at USACC sites.

(12) Assume responsibility, at the USACC Civil Defense facilities and warning centers, for conducting safety surveys of the USACC operational areas and providing safety services for the USACC personnel.

RELATIONSHIPS

a. The Commanding General, USACC will be responsive to the requirements and policy guidance on communications and warning matters provided by DCPA. The Commanding General, USACC will assure the continued operation and maintenance of the emergency communications and warning systems for civil defense purposes between the Federal Government and the States.

b. Operation, maintenance and technical control of the three National Warning Centers will be the responsibility of the Commanding General, USACC. Warning functions will be performed in a manner necessary to meet stated DCPA requirements. The Director of DCPA will have operational authority over, and responsibility for, the functions of the Warning Officers in the National Warning Centers. Personnel of the National Warning Centers will maintain continuous coverage and operation of the DCPA Warning Systems. This will be accomplished in accordance with DCPA policy and written criteria. Instructions necessary to meet immediate emergencies may be given directly to the Warning Center personnel by the Director, DCPA, or his designated representatives.

c. USACC Facility Chiefs will assure that the necessary staff assistance and advice is provided the DCPA Regional Directors to accomplish the Civil Preparedness mission in the areas of communications and warning.

BUDGET AND FUNDING

a. USACC will provide budgeting, funding and materiel support for Army assigned fielded DCPA communications and warning systems.

b. DCPA will provide investment funds for the DIDS system (except Edgewood) and the development of radio warning. Investment funding includes procurement of:

(1) All DIDS electronics equipment and real property facilities.
(2) Initial spare parts, TMDE and documentation to support system operation and maintenance.

c. DCPA will provide funding, on a reimbursable basis, to USACC on the project order for personnel, materiel support and other direct costs for the staffing and operation of the radiological engineering and test program. Reimbursement will be provided to USACC upon

presentation of quarterly Standard Form 1080 to DCPA.

d. Until such time as USACC can assume funding responsibility, DCPA will provide funding, on a reimbursable basis, to USACC for personnel costs for telephone switchboard operators at DCPA Regional Headquarters at Maynard, Massachusetts; Olney, Maryland; Thomasville, Georgia; Denton, Texas; and Bothell, Washington. Reimbursement will be provided to USACC upon presentation of quarterly Standard Form 1080 to DCPA.

e. DCPA will provide, on a non-reimbursable basis, administrative supplies, equipment and office furniture to USACC personnel assigned at DCPA Regional Headquarters and Warning Centers.

f. DCPA will provide, on non-reimbursable basis, adequate space to conduct communications, and warning activities at the Regional Headquarters and Warning Centers.

OBLIGATION

Notwithstanding any other provisions of this agreement, USACC will not be bound to take any action in connection with performance of communications and warning responsibilities that would cause the amount for which the DCPA would be obligated hereunder to exceed the funds made available, and the obligation of USACC will be limited accordingly.

REVIEW AND REVISION

This memorandum will be reviewed annually and revised, as and when required.

SUPERSESSON

Memorandum of Agreement dated 12 January 1966 is hereby superseded.

DEPARTMENT OF DEFENSE
DEFENSE CIVIL PREPAREDNESS AGENCY

JOHN E. DAVIS
Director, DCPA
May 1, 1974

DEPARTMENT OF THE ARMY
U. S. ARMY COMMUNICATIONS COMMAND

JACK A. ALBRIGHT
Commanding General, USACC